

The New York Times bestseller

# Willpower

Why Self-Control is  
the Secret to Success



Roy F. Baumeister and John Tierney

"Willpower affects almost every aspect of our lives...  
This wonderful book provides simple tricks to  
help us tap into this important quality."  
—CARLO MARCHI, FORMER CHIEF EXECUTIVE OFFICER, PIRELLI



# WILLPOWER

REDISCOVERING THE GREATEST HUMAN STRENGTH

Roy F. Baumeister

*and*

John Tierney

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## SELECTED TITLES ALSO BY ROY F. BAUMEISTER

*Handbook of Self-  
Regulation: Research,  
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2nd ed. (edited with K. D.  
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*Is There Anything Good  
About Men?: How  
Cultures Flourish by  
Exploiting Men*

*The Cultural Animal:  
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# INTRODUCTION

However you define success—a happy family, good friends, a satisfying career, robust health, financial security, the freedom to pursue your passions—it tends to be accompanied by a couple of qualities.

When psychologists isolate the personal qualities that predict “positive outcomes” in life, they consistently find two traits: intelligence and self-control. So far researchers still haven’t

learned how to permanently increase intelligence. But they have discovered, or at least rediscovered, how to improve self-control.

Hence this book. We think that research into willpower and self-control is psychology's best hope for contributing to human welfare. Willpower lets us change ourselves and our society in small and large ways. As Charles Darwin wrote in *The Descent of Man*, “The highest possible stage in moral culture is when we recognize that we ought to control our

thoughts.” The Victorian notion of willpower would later fall out of favor, with some twentieth-century psychologists and philosophers doubting it even existed. Baumeister himself started out as something of a skeptic. But then he observed willpower in the laboratory: how it gives people the strength to persevere, how they lose self-control as their willpower is depleted, how this mental energy is fueled by the glucose in the body’s bloodstream. He and his collaborators discovered that willpower, like a











Temptations never cease. We often think of willpower as an extraordinary force to be summoned to deal with emergencies, but that's not what Baumeister and his colleagues found when they recently monitored a group of more than two hundred men and women in central Germany. These Germans wore beepers that went off at random intervals seven times a day, prompting them to report whether they were currently experiencing some sort of desire or had recently felt such a desire. The

painstaking study, led by Wilhelm Hofmann, collected more than ten thousand momentary reports from morning until midnight.

Desire turned out to be the norm, not the exception. About half the time, people were feeling some desire at the moment their beepers went off, and another quarter said a desire had just been felt in the past few minutes. Many of these desires were ones they were trying to resist. The researchers concluded that people spend about a quarter of their waking



a break from work by doing a puzzle or game instead of writing a memo. Sexual urges were next on the list of most-resisted desires, a little ahead of urges for other kinds of interactions, like checking e-mail and social-networking sites, surfing the Web, listening to music, or watching television. To ward off temptation, people reported using various strategies. The most popular was to look for a distraction or to undertake a new activity, although sometimes they tried suppressing it directly or

simply toughing their way through it. Their success was decidedly mixed. They were pretty good at avoiding sleep, sex, and the urge to spend money, but not so good at resisting the lure of television or the Web, or the general temptation to relax instead of work. On average, when they tried to resist a desire with willpower, they succeeded about half the time.

A 50 percent failure rate sounds discouraging, and it may well be pretty bad by historical standards. We have no way of knowing

how much our ancestors exercised self-control in the days before beepers and experimental psychologists, but it seems likely that they were under less strain. During the Middle Ages, most people were peasants who put in long, dull days in the fields, frequently accompanied by prodigious amounts of ale. They weren't angling for promotions at work or trying to climb the social ladder, so there wasn't a premium on diligence (or a great need for sobriety). Their villages didn't offer many obvious temptations



beliefs. The Protestant Reformation had made religion more individualistic, and the Enlightenment had weakened faith in any kind of dogma. Victorians saw themselves as living in a time of transition as the moral certainties and rigid institutions of medieval Europe died away. A popular topic of debate was whether morality could survive without religion. Many Victorians came to doubt religious principles on theoretical grounds, but they kept pretending to be faithful believers because









Baumeister's laboratory, that scientists began systematically looking for this source of energy. Until then, for most of the past century, psychologists and educators and the rest of the chattering classes kept finding one reason or another to believe it didn't exist.

## **The Decline of the Will**

Whether you survey the annals of academe or the self-help books at the airport, it's clear that the nineteenth-century concept of "character building" has



“psychology of will” to guide their country during its bleak recovery from the war. That theme would be embraced by the Nazis, whose rally in 1934 was featured in Leni Riefenstahl’s infamous propaganda film, *The Triumph of the Will*. The Nazi concept of mass obedience to a sociopath was hardly the Victorian concept of personal moral strength, but the distinction was lost. If the Nazis represented the triumph of the will . . . well, when it comes to bad PR, there’s nothing quite like a



strong inner moral convictions. The stern self-help books of the Victorian era came to be seen as naïvely self-centered. The new bestsellers were cheery works like Dale Carnegie's *How to Win Friends and Influence People* and Norman Vincent Peale's *The Power of Positive Thinking*. Carnegie spent eight pages instructing readers how to smile. The right smile would make people feel good about you, he explained, and if they believed in you, success was assured. Peale and

other authors came up with an even easier method.

“The basic factor in psychology is the realizable wish,” Peale wrote. “The man who assumes success tends already to have success.” Napoleon Hill sold millions of copies of *Think and Grow Rich* by telling readers to decide how much money they wanted, write the figure down on a piece of paper, and then “believe yourself already in possession of the money.” These gurus’ books would go on selling for the rest of the century, and the feel-good





















was a quaint Victorian myth. But when other psychologists went into the laboratory or the field, they kept happening on something that looked an awful lot like it.

## The Comeback of the Will

In psychology, brilliant theories are cheap. People like to think of the field advancing thanks to some thinker's startling new insight, but that's not how it usually works. Coming up with ideas isn't the hard part. Everyone has a pet







took place. Long after he finished the experiments and moved on to other topics, Mischel kept hearing from his daughters about their classmates. He noticed that the children who had failed to wait for the extra marshmallow seemed to get in more trouble than the others, both in and out of school. To see if there was a pattern, Mischel and his colleagues tracked down hundreds of veterans of the experiments. They found that the ones who had shown the most willpower at age four went on to get

better grades and test scores. The children who had managed to hold out the entire fifteen minutes went on to score 210 points higher on the SAT than the ones who had caved after the first half minute. The children with willpower grew up to become more popular with their peers and their teachers. They earned higher salaries. They had a lower body-mass index, suggesting that they were less prone to gain weight as middle age encroached. They were less likely to report having had problems with drug abuse.

These were stunning results, because it's quite rare for anything measured in early childhood to predict anything in adulthood at a statistically significant level. Indeed, this disconnect was one of the death blows against the Freudian psychoanalytic approach to psychology, which emphasized early childhood experiences as the foundation of adult personality. Surveying this literature in the 1990s, Martin Seligman concluded that there was hardly any convincing proof that episodes in early childhood









exceptionally good at forming and maintaining secure, satisfying attachments to other people. They were shown to be better at empathizing with others and considering things from other people's perspectives. They were more stable emotionally and less prone to anxiety, depression, paranoia, psychoticism, obsessive-compulsive behavior, eating disorders, drinking problems, and other maladies. They got angry less often, and when they did get angry, they were less likely to get

aggressive, either verbally or physically. Meanwhile, people with poor self-control were likelier to hit their partners and to commit a variety of other crimes—again and again, as demonstrated by June Tangney, who worked with Baumeister to develop the self-control scale on personality tests. When she tested prisoners and then tracked them for years after their release, she found that the ones with low self-control were most likely to commit more crimes and return to prison.





alcohol and drug problems. The children with poor self-control tended to wind up poorer financially. They worked in relatively low-paying jobs, had little money in the bank, and were less likely to own a home or have money set aside for retirement. They also grew up to have more children being raised in single-parent households, presumably because they had a harder time adapting to the discipline required for a long-term relationship. The children with good self-control were much more likely to wind



and social class and race—but all these results remained significant even when those factors were taken into account. In a follow-up study, the same researchers looked at brothers and sisters from the same families so that they could compare children who grew up in similar homes. Again, over and over, the sibling with the lower self-control during childhood fared worse during adulthood. They ended up sicker, poorer, and were more likely to spend time in prison. The results couldn't

be clearer: Self-control is a vital strength and key to success in life.

## **Evolution and Etiquette**

As psychologists were identifying the benefits of self-control, anthropologists and neuroscientists were trying to understand how it evolved. The human brain is distinguished by large and elaborate frontal lobes, giving us what was long assumed to be the crucial evolutionary advantage: the intelligence to solve

problems in the environment. After all, a brainier animal could presumably survive and reproduce better than a dumb one. But big brains also require lots of energy. The adult human brain makes up 2 percent of the body but consumes more than 20 percent of its energy. Extra gray matter is useful only if it enables an animal to get enough extra calories to power it, and scientists didn't understand how the brain was paying for itself. What, exactly, made ever-larger brains with their powerful



the “fruit-seeking brain theory” made lots of sense—but only in theory. The anthropologist Robin Dunbar found no support for it when he surveyed the brains and diets of different animals. Brain size did not correlate with the type of food. Dunbar eventually concluded that the large brain did not evolve to deal with the physical environment, but rather with something even more crucial to survival: social life. Animals with bigger brains had larger and more complex social networks. That suggested a



to get along with the rest of the group. They depend on one another for the food they need to survive. When the food is shared, often it's the biggest and strongest male who gets first choice in what to eat, with the others waiting their turn according to status. For animals to survive in such a group without getting beaten up, they must restrain their urge to eat immediately. Chimpanzees and monkeys couldn't get through meals peacefully if they had squirrel-sized brains. They might expend more calories in fighting









of nerve cells firing. But the will is to be found in connecting units across time. Will involves treating the current situation as part of a general pattern. Smoking one cigarette will not jeopardize your health. Taking heroin once will not make you addicted. One piece of cake won't make you fat, and skipping one assignment won't ruin your career. But in order to stay healthy and employed, you must treat (almost) every episode as a reflection of the general need to resist these temptations. That's where conscious self-

control comes in, and that's why it makes the difference between success and failure in just about every aspect of life.

## Why Will Yourself to Read This?

The first step in self-control is to set a goal, so we should tell you ours for this book. We hope to combine the best of modern social science with some of the practical wisdom of the Victorians. We want to tell how willpower—or the lack thereof—has affected the











# **1: IS WILLPOWER MORE THAN A METAPHOR?**

Sometimes we  
are devils to  
ourselves

When we will  
tempt the frailty  
of our powers,  
Presuming on  
their changeful  
potency.

—*Troilus, in  
Shakespeare's Troilus  
and Cressida*









flower, but otherwise she remained utterly motionless.

Some people would insult her or throw things at her. They tried to make her laugh. They grabbed her. Some yelled at her to get a real job and threatened to steal her money. Drunks tried to pull her down off the pedestal or to tip her over.

“It was not pretty,” Palmer recalls. “Once I had a frat boy rub his head drunkenly in my crotch as I looked skyward thinking, *Good Lord, what have I done to deserve this?* But









been exercising willpower to resist temptation, but that folk concept from the nineteenth century had been mostly abandoned by modern experts. What would it even mean to say that a person was exercising willpower? How could it be shown to be anything more than a metaphor?

The answer, as it turned out, was to start with warm cookies.

## **The Radish Experiment**

Sometimes social scientists have to be a little cruel with



radish condition": no treats, just raw radishes.

To maximize temptation, the researchers left the students alone with the radishes and the cookies, and observed them through a small, hidden window. The ones in the radish condition clearly struggled with the temptation. Many gazed longingly at the cookies before settling down to bite reluctantly into a radish. Some of them picked up a cookie and smelled it, savoring the pleasure of freshly baked chocolate. A couple accidentally dropped a

cookie on the floor and then hastened to put it back in the bowl so no one would know of their flirtation with sin. But nobody actually bit into the forbidden food. The temptation was always resisted, if in some cases by the narrowest of margins. All this was to the good, in terms of the experiment. It showed that the cookies were really quite tempting and that people needed to summon up their willpower to resist them.

Then the students were taken to another room and given geometry puzzles to



The students who'd been allowed to eat chocolate chip cookies and candy typically worked on the puzzles for about twenty minutes, as did a control group of students who were also hungry but hadn't been offered food of any kind. The sorely tempted radish eaters, though, gave up in just eight minutes—a huge difference by the standards of laboratory experiments.

They'd successfully resisted the temptation of the cookies and the chocolates, but the effort left them with less energy to tackle the





experiments, it made immediate sense to clinical psychologists like Don Baucom, a veteran marital therapist in Chapel Hill, North Carolina. He said the Baumeister research crystallized something that he had sensed in his practice for years but never fully understood. He'd seen many marriages suffer because the two-career couples fought over seemingly trivial issues every evening. He sometimes advised them to go home from work early, which might sound like odd advice—why give them





just conditioning: No matter how fit you are, at some point your body wants to rest, and your mind has to tell it to run, run, run. Similarly, it takes more than just physical strength to grip a hand exerciser and keep squeezing it against the force of the spring. After a short time, the hand grows tired and then gradually starts to feel muscle pain. The natural impulse is to relax, but you can will yourself to keep squeezing—unless your mind has been too busy suppressing other feelings,







Neither did a classic mental exercise: the white bear challenge. The white bear has been something of a mascot for psychologists ever since Dan Wegner heard the legend about how the young Tolstoy—or, depending on the version, the young Dostoyevsky—bet that his younger brother couldn't go five minutes without thinking about a white bear. The brother had to pay up, having made a disconcerting discovery about human mental powers. We like to think we control our thoughts, but







she would like. But notice that all these possible explanations for the difference between Mom and the white bear are things about Mom. That's exactly the problem, at least as a researcher would see it. Mothers are not good topics for pure research, because there is so much baggage—so many mental and emotional associations. The reasons you do or don't think about your mother are many, variable, and highly specific, so they would not easily generalize. In contrast, if people have



puzzles (compared with people who'd been free to ponder anything). They also had a harder time controlling their feelings in another slightly cruel experiment: being forced to remain stoic while watching classic skits from *Saturday Night Live* and a Robin Williams stand-up routine. The audience's facial reactions were recorded and later systematically coded by researchers. Once again, the effects were obvious on the people who'd earlier done the white bear exercise: They couldn't

resist giggling, or at least smiling, when Williams went into one of his riffs.

You might keep that result in mind if you have a boss prone to making idiotic suggestions. To avoid smirking at the next meeting, refrain from any strenuous mental exercises beforehand. And feel free to think about all the white bears you want.

## Name That Feeling

Once the experiments showed that willpower existed, psychologists and neuroscientists had a new

set of questions. Exactly what *was* willpower? Which part of the brain was involved? What was happening in the neural circuits? What other physical changes were taking place? What did it feel like when willpower ebbed?

The most immediate question was what to call this process—something more precise than “changeful potency” or “weak will” or the “The devil made me do it.” The recent scientific literature didn’t offer much help. Baumeister had to go all

the way back to Freud to find a model of the self that incorporated concepts of energy. Freud's ideas, as usual, turned out to be both remarkably prescient and utterly wrong. He theorized that humans use a process called sublimation to convert energy from its basic instinctual sources into more socially approved ones. Thus, Freud posited, great artists channel their sexual energy into their work. It was clever speculation, but the energy model of the self didn't catch on with psychologists



urges, and therefore there should be relatively little sexual activity. Have you ever heard of an artists' colony known for its *lack* of sex?

Still, Freud was onto something with his energy model of the self. Energy is an essential element in explaining the liaisons at artists' colonies. Restraining sexual impulses takes energy, and so does creative work. If you pour energy into your art, you have less available to restrain your libido. Freud had been a bit vague about where this energy

came from and how it operated, but at least he had assigned it an important place in his theory of self. As a kind of homage to Freud's insights in this direction, Baumeister elected to use Freud's term for the self: *ego*. Thus was born "ego depletion," Baumeister's term for describing people's diminished capacity to regulate their thoughts, feelings, and actions. People can sometimes overcome mental fatigue, but Baumeister found that if they had used up energy by



Jennifer Gutsell, observed people who were wearing a cap that covered the skull with a dense network of electrodes and wires. This method, called electroencephalographic recording (EEG), enables scientists to detect electrical activity inside the brain. It can't exactly read someone's mind, but it can help map out how the brain deals with various problems. The Toronto researchers paid special attention to the brain region known as the anterior cingulate cortex, which watches for



clips from documentaries showing animals suffering and dying. Half the people were told to stifle their emotional reactions, thereby putting themselves into a state of ego depletion. The rest simply watched the movies carefully. Then everyone went on to a second, ostensibly unrelated activity: the classic Stroop task (named after psychologist James Stroop), requiring them to say what color some letters are printed in. For example, a row of XXXs might appear in red, and



but he'd take longer to answer correctly when looking at Russian words for colors.

Picking the right color proved to be especially difficult for the people in the Toronto experiment who had already depleted their willpower during the sad animal movie. They took longer to respond and made more mistakes. The wires attached to their skulls revealed notably sluggish activity in the conflict-monitoring system of the brain: The alarm signals for mismatches were weaker. The results



depletion without covering your skull with wires and electrodes. What are the noticeable symptoms—something to warn you that your brain is not primed for control *before* you get into a fight with your partner or polish off the quart of Häagen-Dazs? Until recently, researchers couldn't offer much help. In dozens of studies, they looked unsuccessfully for telltale emotional reactions, turning up either contradictory results or nothing at all. Being depleted didn't seem to consistently make people















# The Mystery of the Dirty Socks

In the 1970s, the psychologist Daryl Bem set about trying to distinguish conscientious people from others by making up a list of behaviors. He assumed he'd find a positive correlation between "turns in school assignments on time" and "wears clean socks," because both would stem from the underlying trait of conscientiousness. But when he collected data from students at Stanford, where he taught, he was surprised to find a hefty negative correlation.

“Apparently,” he joked, “the students could either get their homework done or change their socks every day, but not both.”

He didn’t give it much further thought, but decades later other researchers wondered if there was something to the joke. Two Australian psychologists, Megan Oaten and Ken Cheng, considered the possibility that the students were suffering from the sort of ego depletion revealed in the radish experiment. These psychologists started by administering



were forsaken as the students' self-control waned during exam period.

They stopped exercising. They smoked more cigarettes. They drank so much coffee and tea that their caffeine intake doubled. The extra caffeine might have been excused as a study aid, but if they were really studying more, you'd expect them to be drinking less alcohol, and that didn't happen. Even though there were fewer parties during exam time, the students drank as much as ever. They abandoned healthy diets and increased their

consumption of junk food by 50 percent. It wasn't that they suddenly convinced themselves that potato chips were a brain food. They simply stopped worrying about unhealthy, fattening food when they were focused on exams. They also became less concerned about returning phone calls, washing dishes, or cleaning floors. Final-exam time brought declines in every aspect of personal hygiene that was studied. The students became less diligent about brushing and flossing their teeth. They skipped











One of Baumeister's graduate students, Mark Muraven, took up the question of conservation and kept studying it until he was well established as a tenured professor at the State University of New York at Albany. He began, as usual, with a round of exercises to deplete the subjects' willpower. Then, when he prepared them for the second round, testing their perseverance, he warned them that there would later be an additional third round featuring more tasks to perform. People reacted by

slacking off on the second round. Consciously or unconsciously, they were conserving energy for the final push.

Then Muraven tried another variation in the second round of the experiment. Before testing people's perseverance, he informed them that they could win money by doing well. The cash worked wonders.

People immediately found reserves to perform well. Watching the experimental subjects persevere, you'd never have known that their willpower had been

depleted earlier. They were like marathoners who found a second wind once they caught sight of the prize waiting for them at the finish line.

But suppose, upon reaching that prize, the marathoners were suddenly informed that the finish line was actually another mile down the road. That's essentially what Muraven did to the people who won cash for their perseverance in the second round. He waited until after their stellar performance to inform them that they weren't



# Lessons from the Street and the Lab

For all her bohemian transgressiveness, Amanda Palmer is thoroughly bourgeois in one respect. Ask her about willpower, and she will tell you that she has never had enough. “I don’t consider myself a disciplined person at all,” she says. But if you press her, she will concede that her six years as a living statue did strengthen her resolve.

“The street performing gave me balls of steel,” she says. “Those hours on the box trained me to stay





geometry puzzles—drew on the same source of energy, and this phenomenon has been demonstrated over and over. There are hidden connections among the wildly different things you do all day. You use the same supply of willpower to deal with frustrating traffic, tempting food, annoying colleagues, demanding bosses, pouting children. Resisting dessert at lunch leaves you with less willpower to praise your boss's awful haircut. The old line about the frustrated worker going home and kicking the dog

jibes with the ego-depletion experiments, although modern workers generally aren't so mean to their pets. They're more likely to say something nasty to the humans in the household.

Ego depletion affects even your heartbeat. When people in laboratory experiments exercise mental self-control, their pulse becomes more erratic; conversely, people whose normal pulse is relatively variable seem to have more inner energy available for self-control, because they do better on



damn'd spot!" or can't get rid of an annoying ear worm ("I got you babe, I got you babe"). But you can also learn to focus, particularly when the motivation is strong. People often conserve their willpower by seeking not the fullest or best answer but rather a predetermined conclusion. Theologians and believers filter the world to remain consistent with the nonnegotiable principles of their faith. The best salesmen often succeed by first deceiving themselves. Bankers packaging subprime loans



















resolutions all compete with one another. Each time you try to follow one, you reduce your capacity for all the others.

A better plan is to make one resolution and stick to it. That's challenge enough. There will be moments when that will still seem like one resolution too many, but perhaps you can persevere by thinking of Amanda Palmer heroically frozen in place on her pedestal. She may not consider herself a disciplined person, but she did learn something inspiring about her species



## **2: WHERE DOES THE POWER IN WILLPOWER COME FROM?**

Whether or not ingestion of food stuffs with preservatives and sugar in high content causes you to alter your personality somehow, or causes you to act in an aggressive manner, I don't



I have terrible PMS, so I just went a little crazy.

*—Actress Melanie Griffith, explaining why she had filed for divorce from Don Johnson only to immediately withdraw it*

If willpower isn't just a metaphor, if there is a power driving this virtue, where does it come from? The answer emerged by accident from a failed experiment inspired by







merciful, benevolent god encourage so many already overweight mortals to stuff themselves with deep-fried dough?

But to psychologists there was a certain logic to it: By relaxing before Lent, perhaps people could store up the willpower necessary to sustain themselves through weeks of self-denial. The Mardi Gras theory, as it was known, was never as popular with scientists as it was with pancake eaters in peacock headdresses, but it seemed worth an experiment. In place of a Fat Tuesday



strengthen willpower by helping people perform better than expected on the next task. Fortified by the milkshake, they had more self-control than did the unlucky subjects who'd been stuck reading the old magazines. So far, so good. But it turned out that the joyless drink of glop worked just as well, which meant that building willpower didn't require happy self-indulgence. The Mardi Gras theory looked wrong. Besides tragically removing an excuse for romping through the streets of New Orleans, the





their eagerness to chart the human equivalent of the computer's chips and circuits, most psychologists neglected one mundane but essential part of the machine: the power cord.

Chips and circuit boards are useless without a source of energy. So is the brain. It took psychologists a while to realize this, and the realization came not from computer models but from biology. The transformation of psychology based on ideas from biology was one of the major developments of the late twentieth century.



the milkshake experimenters think twice before dismissing their results. Before writing off that dairy glop, they figured, maybe they should take a look at its ingredients, and start paying attention to stories from people like Jim Turner.

## Brain Fuel

The comedian Jim Turner has played dozens of roles in films and television series, like the football-star-turned-sports-agent on HBO's *Arliss* series, but





frenzy had subsided. But in fact he hadn't been sedated. Quite the reverse: The juice's sugar had given him extra energy.

More precisely, the energy in the juice was converted to glucose, the simple sugar manufactured in the body from all kinds of foods, not just sweet ones. The glucose produced by digestion goes into the bloodstream and is pumped throughout the body. The muscles, not surprisingly, use plenty of glucose, as do the heart and liver. The immune system uses large quantities, but

only sporadically. When you're relatively healthy, your immune system may use only a relatively small amount of glucose. But when your body is fighting off a cold, it may consume gobs of it. That's why sick people sleep so much: The body uses all the energy it can to fight the disease, and it can't spare much for exercising, making love, or arguing. It can't even do much thinking, a process that requires plentiful glucose in the bloodstream. The glucose itself doesn't enter the brain, but it's converted into





When a psychiatrist testifying for the defense cited White's consumption of Twinkies and other junk food in the days before the murders, journalists mocked White for trying to excuse himself with a "Twinkie defense." In fact, White's chief defense wasn't based on the argument that the Twinkies turned him murderous by causing his blood-sugar levels to quickly spike and then crash. His attorneys argued that he deserved mercy because he suffered from "diminished capacity" due to severe depression,





In one remarkable study, researchers in Finland went into a prison to measure the glucose tolerance of convicts who were about to be released. Then the scientists kept track of which ones went on to commit new crimes. Obviously there are many factors that can influence whether an ex-con goes straight: peer pressure, marriage, employment prospects, drug use. Yet just by looking at the response to the glucose test, the researchers were able to predict with greater than 80 percent accuracy

which convicts would go on to commit violent crimes. These men apparently had less self-control because of their impaired glucose tolerance, a condition in which the body has trouble converting food into usable energy. The food gets converted into glucose, but the glucose in the bloodstream doesn't get absorbed as it circulates. The result is often a surplus of glucose in the bloodstream, which might sound beneficial, but it's like having plenty of firewood and no matches. The glucose remains there



challenges, particularly if they don't monitor themselves carefully.

Researchers testing personality have found that diabetics tend to be more impulsive and have more explosive temperaments than other people their age. They're more likely to get distracted while working on a time-consuming task. They have more problems with alcohol abuse, anxiety, and depression. In hospitals and other institutions, diabetics throw more tantrums than other patients. In everyday life, stressful conditions

seem to be harder on diabetics. Coping with stress typically takes self-control, and that's difficult if your body isn't providing your brain with enough fuel.

Jim Turner deals with his self-control problems directly—and hilariously—in a one-man show titled “Diabetes: My Struggles with Jim Turner.” He recalls moments like the argument with his teenage son that ended with him, ostensibly the adult, getting so mad that he went outside and kicked a permanent dent into the









the aggressiveness, you'd want about an equal number of aggressive people in the glucose and in the no-glucose conditions, and also equal numbers of pacifists. Random assignment usually does this pretty well. Once you've got representative groups of people, you can see how they're affected by different treatments.

Nutritionists used this method during food experiments at elementary schools. All the children in a class were told to skip breakfast one morning, and





with a big drop in the brain's fuel of glucose.

To establish cause and effect, the researchers tried refueling the brain in a series of experiments involving lemonade mixed either with sugar or with a diet sweetener. The strong taste of the lemon made it hard for the tasters to know whether real sugar or diet sweetener was used. The sugar gave them a quick burst of glucose (though not for long, so the experimenters needed to get to the point pretty soon). The diet sweetener didn't furnish any glucose

or, indeed, any nutrition at all.

The effects of the drinks showed up clearly in a study of aggression among people playing a computer game. At first, the game seemed reasonable, but it soon became impossibly difficult. Everyone got frustrated as the game went on, but the one who got a sugar-filled drink managed to grumble quietly and keep playing. The others started cursing aloud and banging the computer. And when by prearranged script the experimenter made an





was simply left alone for ten minutes in cages, where they had no choice but to remain and therefore didn't have to exercise any self-control. Then all the dogs were given a familiar toy with a sausage treat inside it. All the dogs had played with this toy in the past and successfully extracted the treat, but for the experiment the toy was rigged so that the sausage could not be extracted. The control group of dogs spent several minutes trying to extract it, but the dogs who'd had to obey the

commands gave up in less than a minute. It was the familiar ego-depletion effect, and the canine cure turned out to be familiar, too. In a follow-up study, when the dogs were given different drinks, the drinks with sugar restored the willpower of the dogs who'd had to obey the commands.

Newly fortified, they persisted with the toy just as long as the dogs who'd been in cages. The artificially sweetened drink had no effect, as usual.

Despite all these findings, the growing





pictures). Earlier work by Heatherton and Kate Demos had shown that these pictures produce various reactions in key brain sites, such as the nucleus accumbens and the amygdala. These same reactions were found again. Among dieters, depletion caused an increase in activity in the nucleus accumbens and a corresponding decrease in the amygdala. The crucial change in this experiment involved a manipulation of glucose. Some people drank lemonade sweetened with sugar, which sent

glucose flooding through the bloodstream and presumably into the brain.

Dramatically, Heatherton announced the results during his speech accepting the leadership of the Society for Personality and Social Psychology, the world's largest group of social psychologists. In his presidential address at the annual meeting in 2011 in San Antonio, Heatherton reported that the glucose reversed the brain changes wrought by depletion—a finding, he said, that thoroughly surprised him. (Baumeister, sitting in the

audience to watch his protégé enjoy the moment of glory as society president, recalled his own surprise when his own lab had first found the links to glucose.) Heatherton's results did much more than provide additional confirmation that glucose is a vital part of willpower. They helped resolve the puzzle over how glucose could work without global changes in the brain's total energy use. Apparently ego depletion shifts activity from one part of the brain to another. Your brain does not stop working when

glucose is low. It stops doing some things and starts doing others. That may help explain why depleted people feel things more intensely than normal: Certain parts of the brain go into high gear just as others taper off.

As the body uses glucose during self-control, it starts to crave sweet things to eat—which is bad news for people hoping to use their self-control to avoid sweets. When people have more demands for self-control in their daily lives, their hunger for sweets increases. It's not a simple

matter of wanting all food more—they seem to be specifically hungry for sweets. In the lab, students who have just performed a self-control task eat more sweet snacks but not other (salty) snacks. Even just expecting to have to exert self-control seems to make people hungry for sweet foods.

All these results don't offer a rationale for providing sugar fixes to anyone, human or canine, outside the laboratory. The body may crave sweets as the quickest way to get energy, but low-sugar,

highprotein foods and other nutritious fare work just as well (albeit more slowly). Still, the discovery of the glucose effect does point to some useful techniques for self-control. It also offers a solution to a long-standing human mystery: Why is chocolate so appealing on certain days of the month?

## **Inner Demons**

Whatever you think of Jennifer Love Hewitt's acting ability, you have to give her credit for originality when she was

cast in a film version of “The Devil and Daniel Webster.” She shared star billing with Anthony Hopkins and Alec Baldwin, which would have been a daunting enough proposition for any young actress, but she also had the challenge of playing the Devil. If your goal, as drama coaches say, is to “inhabit the character,” a demon poses more difficulties than, say, a police officer. You can’t do field research by riding around in a squad car with Satan. But Hewitt came up

with an alternative method of role prep.

“I started paying close attention to myself and how I felt when I had PMS,” she said. “That’s what formed my basis for playing Satan.”

If that strikes you as a singularly dark view of premenstrual syndrome, you haven’t spent much time at [PMSCentral.com](http://PMSCentral.com) and the other Web sites where women swap remedies and stories. They joke that PMS stands for Psychotic Mood Shift, or simply Pass My Shotgun.



Sweets) to murder. After Marg Helgenberger, a star on the *CSI* television show, was photographed at an awards dinner with oddly colored hair, she explained: “That shade was known as ‘PMS Pink.’ I was totally PMSing that day. I was crazy! What did I think, I was gonna get away with pink hair on *CSI*? ” The word *crazy* was also used by Melanie Griffith in diagnosing the PMS state that drove her to file for divorce and then abruptly change her mind, although her publicist preferred to use more clinical terms,













more. The increase is especially likely for women who have a drinking problem or a family history of alcoholism. During this luteal phase, women are more liable to go on drinking binges or abuse cocaine and other drugs. PMS is not a matter of one specific behavior problem cropping up. Instead, self-control seems to fail across the board, letting all sorts of problems increase.

One drug that isn't used more frequently is marijuana, and that exception is revealing. Unlike cocaine and opiates,



to PMS miss twice as many days of work as other women do. Some of those missed days are due, no doubt, to the physical pain associated with PMS, but some of the absenteeism is probably related to self-control. Following rules is harder when your body is short of glucose. Inside women's prisons, disciplinary problems based on breaking prison rules are highest among women who are at the luteal phase of their cycle. Violent, aggressive acts—legal or illegal—reach a peak among PMS sufferers





my statue work if something happened," Palmer recalls. "Something emotional could be as simple as nobody walked by and looked at me for ten minutes, and therefore the world was a cold and lonely place and no one loved me. The other extreme would be a ninety-five-year-old man hobbling up to me at the rate of one mile per hour and taking five minutes to get a folded five-dollar bill out of his wallet and put it into my can and look up at me with his wizened lonely old eyes.

I would just lose it. I would try to transmit the largest concentration of love I could possibly transmit without speaking or moving my face."

Her experience is fairly typical of what other women report during the luteal phase: They're affected by a variety of feelings, and their problems often arise from a strong reaction to some event. They say they don't want to get upset but can't seem to stop themselves from getting worked up over minor things. They're not consciously aware that

their body has abruptly cut the fuel supply for self-control, so they're surprised that normal controls don't work as usual.

It feels to many women as if life stresses increase: They report more negative events and fewer positive events occurring during this luteal phase. But the outside world doesn't predictably change for a few days every month. If a woman feels less capable than usual of handling her problems, she'll be more stressed out. If PMS weakens her control over

her emotions, then the same misfortune is more upsetting. The same task at work is more of a challenge if she doesn't have as much energy available to focus her attention. In carefully controlled laboratory tests requiring concentration, women in the luteal phase performed worse than women at other stages of the menstrual cycle, and these effects were found for a general sample of women, not just PMS sufferers. Whether or not they felt the acute symptoms of PMS, their

bodies were short of glucose.

We don't want to exaggerate these problems, because most women cope quite well with PMS at work and at home, and we certainly don't want to suggest that women have weaker willpower than men. To repeat, women on the whole have *fewer* problems with self-control than men: They commit fewer violent crimes and are less likely to become alcoholics or drug addicts. Girls' superior self-control is probably one reason they get better grades in school



insoluble problems and overcome by impulses that seem alien, if not satanic.

Usually, though, the problem is within. It's not that the world has suddenly turned cruel. It's not that Lucifer is tormenting us with dark new temptations and impulses. It's that we're less capable of dealing with ordinary impulses and long-standing problems. The provocations can be real enough—you may well have reason to get angry at your boss or reconsider your marriage. (Melanie Griffith eventually did get

divorced from Don Johnson.) But you won't make much progress on those other problems until you control your own emotions, and that starts with controlling your glucose.

## **Eat Your Way to Willpower**

Now that we've surveyed the problems caused by lack of glucose, we can turn to solutions and to cheerier topics, like good meals and long naps. Here are some lessons and strategies for

putting glucose to work for you:

*Feed the beast.* By beast, we don't mean Beelzebub. We mean the potential demon inside you or anyone spending time with you. Glucose depletion can turn the most charming companion into a monster. The old advice about eating a good breakfast applies all day long, particularly on days when you're physically or mentally stressed. If you have a test, an important meeting, or a vital project, don't take it on without glucose. Don't get into an argument with







hour for the body to digest something more complex, like protein.

There might be times when you could use sugar to boost your self-control right before a brief challenge, like a math test or a track meet. If you've just quit smoking, you might use a sweet lozenge as an emergency stopgap against a sudden craving for a cigarette. But a sugar spike is promptly followed by a crash that leaves you feeling more depleted, so it's not a good long-term strategy. We're certainly not recommending that









work, here's something to consider: Driving a car with a bad cold has been found to be even more dangerous than driving when mildly intoxicated. That's because your immune system is using so much of your glucose to fight the cold that there's not enough left for the brain.

If you're too glucose-deprived to do something as simple as driving a car, how much use are you going to be in the office (assuming you make it there safely)? Sometimes the job has to be muddled





A recent study found that workers who were not getting enough sleep were more prone than others to engage in unethical conduct on the job, as rated by their supervisors and others. For example, they were more likely than others to take credit for work done by somebody else. In a laboratory experiment offering test takers the chance to win cash, students who had not slept enough were more likely than others to take advantage of an opportunity to cheat. Not getting enough sleep has



# **3: A BRIEF HISTORY OF THE TO-DO LIST, FROM GOD TO DREW CAREY**

In the beginning God created the heavens and the earth; and the earth was without form and empty, and darkness was upon the face of the deep; and the Spirit of God was brooding upon



to be broken down into a schedule of daily tasks, starting with Monday's to-do list:

1. Let there be light.
2. Observe light.
3. Confirm light is good.
4. Divide light from darkness.
5. Give name to light (Day).
6. Give name to darkness (Night).

Thus was writ the weekly calendar: Tuesday for firmament-making chores, Wednesday for creating land and trees, Thursday for stars, Friday for fish and fowl, Saturday for man

and woman, Sunday for R&R. The tasks were checked off one at a time, then reviewed at the end of the week: “And God saw every thing that He had made, and, behold, it was very good.”

Does that restful weekend sound anything like yours? At first glance, the Genesis strategy seems ridiculously obvious: Set a goal; make a list of the steps to reach it; do them; relax. But how many mortals actually cross off all the items on their weekly list? Our failure rate keeps climbing as the lists





standards would be nothing more than aimless change, like trying to diet without any idea of which foods are fattening.

For most of us, though, the problem is not a lack of goals but rather too many of them. We make daily to-do lists that couldn't be accomplished even if there were no interruptions during the day, which there always are. By the time the weekend arrives, there are more unfinished tasks than ever, but we keep deferring them and expecting to get through them with miraculous speed. That's





things have their places; let each part of your business have its time.” There were a dozen more virtues on his list—Temperance, Silence, Resolution, Frugality, Industry, Sincerity, Justice, Moderation, Cleanliness, Tranquility, Chastity, and Humility—but he recognized his limits. “I judg’d it would be well not to distract my attention by attempting the whole at once,” Franklin explained, “but to fix it on one of them at a time.” The result was what he called a “course,” and what today would be marketed as *13 Weeks to*

*Total Virtue.* Long before Steven Covey's seven habits and leather-bound organizers and planners, long before the Daily Affirmations recited by the likes of Stuart Smalley, Franklin devised a regimen complete with a "table of virtues" and an inspirational prayer:

**Father of light and life,  
thou Good Supreme!**

**O teach me what is  
good; teach me Thyself!**

**Save me from folly,  
vanity, and vice,  
From every low  
pursuit; and fill my  
soul**

**With knowledge,  
conscious peace, and  
virtue pure;  
Sacred, substantial,  
never-fading bliss!**

In a paper notebook, Franklin drew lines of red ink to make thirteen weekly charts, one for every virtue. Each chart had columns for the days and rows for all the virtues, starting with the virtue of the week. At the end of the day, he would go down the column and put a black pencil mark in the row of any virtue that he'd failed to uphold. In one chart, compiled during a week





It didn't quite work out that way. The marks kept appearing on the pages. In fact, as he kept repeating the course, erasing the black pencil marks from the paper to make a fresh start, he eventually wore holes in the paper. So he drew his red-ink charts again, in a sturdier notebook with leaves made of ivory (which spread open like a fan). After completing a course, he could wipe off the pencil marks with a wet sponge, and the ivory charts proved remarkably durable. Nearly half a century later, when

he was a diplomat flirting with ladies in Paris, he still had the charts and liked to show them off, causing one French friend to marvel at touching “this precious booklet.” Unlike his self-help successors (including the ones who borrowed his name for the FranklinCovey 31-Day Planner), Franklin never tried marketing an international line of notebook organizers, perhaps because he was too busy in Paris trying to get help for George Washington’s army. Or maybe because his



a young journeyman printer, he tried to practice Order by drawing up a rigid daily work schedule, he kept getting interrupted by unexpected demands from his clients—and Industry required him to ignore the schedule and meet with them. If he practiced Frugality (“Waste nothing”) by always mending his own clothes and preparing all his own meals, there’d be less time available for Industry at his job—or for side projects like flying a kite in a thunderstorm or editing the Declaration of









Moderation they violate another of Franklin's virtues, Justice.

The result of conflicting goals is unhappiness instead of action, as the psychologists Robert Emmons and Laura King demonstrated in a series of studies. They had people list their fifteen main goals and mark which ones conflicted with which others. In one study, the subjects kept daily logs of their emotions and physical symptoms for three weeks, and they gave researchers access to their health records for the

previous year. In another study, they wore beepers that went off at random points during the day, prompting them to answer questions about what they were doing and feeling. They also returned to the lab a year later to furnish additional information on what they had accomplished and how their health had fared. By asking people about their goals and then monitoring them, the researchers identified three main consequences of conflicting goals:

*First, you worry a lot.* The more competing demands you face, the more time you spend contemplating these demands. You're beset by rumination: repetitive thoughts that are largely involuntary and not especially pleasant.

*Second, you get less done.* It might seem that people who think more about their goals would also take more steps to reach them, but instead they replace action with rumination. The researchers found that people with clear,





measured by psychologists. A hen might brood contentedly, but humans suffer when their conflicting goals leave them sitting around doing nothing. And they can't resolve those conflicts until they decide which kinds of goals will do them the most good.

## Which Goals?

Joe is having a cup of coffee in a restaurant. He's thinking of the time to come when . . .

Suppose, as a storytelling exercise, you finish that













smokers are exemplars of the hazards of short-term goals. Ignoring the long term is hazardous to your health, both physically and fiscally. In another experiment with those stories about Joe and Bill, researchers found that people with high incomes tended to look further into the future than people with low incomes. That difference is partly due to necessity: If you're scrambling to pay the rent, you don't have the luxury of comparing 401(k) retirement plans. Yet being unable to pay the rent can



survey of citations ranked him in fourth place behind Freud, Skinner, and Piaget). He and Dale Schunk studied children between the ages of seven and ten who were having difficulty with math. The children took a course featuring self-directed learning, with many arithmetic exercises. Some of the students were told to set themselves proximal goals of trying to do at least six pages' worth of problems in each session. Others were told to set only one distal goal of completing forty-two pages







Focusing on far-off goals seemed to be more effective than focusing on intermediate goals, like getting good grades, going on holidays, or earning a diploma. Those distal goals also seemed to be more useful than present-oriented goals, like aiming to help others or acquire knowledge. Why did the long-term objectives work with these high school students but not in the earlier study with the arithmetic lessons? One reason is that the high school students could clearly see a connection

between their daily tasks and their long-term goals. The superior students not only emphasized distal goals but were also more likely than the lesser students to see their current studies and work as vital steps leading toward those goals. Another reason is that older children are better able than younger ones to think about the future.

Regardless of whether those boys ever reached their distal goals, they moved forward by seeing the connection between their distant dreams and



of it, yet I was, by the endeavour, a better and a happier man than I otherwise should have been if I had not attempted it."

## Fuzzy Versus Fussy

To reach a goal, how specific should your plans be? In one carefully controlled experiment, researchers monitored college students taking part in a program to improve their skills at studying. In addition to receiving the usual instructions on how to use time effectively, the students were randomly











next time the two nations fought, the Prussians won a resounding victory.

By World War I, everyone was planning. By World War II, military leaders had the bureaucratic skills for what has been called the most complicated logistical exercise in history: the invasion of Normandy. The Allied force of 160,000 that landed on the beaches wasn't large by the standards of Napoleon, who had marched into Russia with more than 400,000 troops. But the operation was orchestrated

so precisely that planners invented their own calendar for a landing on D-day at precisely H-Hour (1.5 hours after nautical twilight). The to-do list had detailed instructions covering the preparations (like the bombing runs on day D-3) and then the invasion itself. It continued all the way to day D+14, specifying reinforcements where reinforcements would arrive a full two weeks after the beginning of the battle. The military planners' confidence might have seemed presumptuous to Napoleon, but their success

raised everyone's faith in their powers.

After the war, corporate America had new planning heroes, like the Whiz Kids, a group of World War II veterans who reorganized the Ford Motor Company. Their leader was Robert S. McNamara, who before the war had taught accounting at Harvard Business School. He used his mathematical skills to analyze bombing missions in the Army Air Force's Office of Statistical Control, and his success there led to the job at Ford. Then he went back to the military to

become secretary of defense, introducing the Pentagon to elaborate new planning tools based on principles of “systems analysis” and reams of data. He seemed the very model of a modern warrior until his plans for the Vietnam War turned out so badly. While he sat in the Pentagon plotting the demise of the enemy based on the casualty statistics he saw, soldiers in the jungle were discovering that they couldn’t put any faith in those statistics or plans. The Vietnam debacle gave military leaders a new







# Drew Carey's Dream In-Box

One day in Hollywood, when faced with the usual dispiriting sight of his desk, Drew Carey had a fantasy. He looked at the mounds of paper and thought: *What would David Allen do?* Or, more precisely: *What if I could get David Allen to come here and deal with this stuff?*

Until that point, Carey was a fairly typical victim of information overload, if a celebrity can ever be called typical. He'd starred





yourself because in the back of your mind you feel like, *I should go through those e-mails I have.* You're never really at rest.”

Carey had picked up a copy of David Allen's book *Getting Things Done: The Art of Stress-Free Productivity*, yet the subtitle's bliss continued to elude him. “I was reading the book and doing some of the stuff in it, but not all of it. I was so desperate. I finally said, ‘Shit, man, I'm rich,’ and I called him up directly. I contacted his organization and asked how much it would cost if

David Allen came out and worked with me personally. He said, ‘For  $x$  amount of money, I’ll work with you for a whole year.’ And I said, ‘Done.’ It cost me a lot of money, but I didn’t even think about it.”

However large  $x$  was, Carey’s decision makes perfect sense to devotees of GTD, the acronym for Allen’s book that has become the name for a system of working and living. But it’s not the usual personality-driven cult of self-help gurus and motivational speakers. Allen doesn’t offer seven



experimenters and Allen independently arrived at the same technique, but they took very different paths. Allen did not operate from any psychological theory. He worked strictly by trial and error, starting, in his own life, with lots of trials and a good deal of error. Coming of age in the 1960s, he studied Zen and Sufi texts, started grad school in history at Berkeley, dropped out, experimented with drugs (punctuated by a brief mental breakdown), taught karate, and worked for a company offering



until his skill at running seminars led to invitations to work with executives at Lockheed and other corporations. As weird as this résumé path sounds, Allen sees a certain consistency in the progression from philosophy, mind-altering drugs, and karate to personal-growth trainer and corporate consultant. He describes it all as a quest for mental peace, for a “mind like water,” the phrase he borrows from his karate lessons: “Imagine throwing a pebble into a still pond. How does the







were too distracted to focus on even the simplest task of the moment. Allen described their affliction with another Buddhist image, “monkey mind,” which refers to a mind plagued with constantly shifting thoughts, like a monkey leaping wildly from tree to tree. Sometimes Allen imagined a variation in which the monkey is perched on your shoulder jabbering into your ear, constantly second-guessing and interrupting until you want to scream, “Somebody, shut up the monkey!”

“Most people have never tasted what it’s like to have nothing on their mind except whatever they’re doing,” Allen says. “You could tolerate that dissonance and that stress if it only happened once a month, the way it did in the past. Now people are just going numb and stupid, or getting too crazy and busy to deal with the anxiety.”

Instead of starting with goals and figuring out how to reach them, Allen tried to help his clients deal with the immediate mess on their desks. He could see the impracticality of

traditional bits of organizational advice, like the old rule about never touching a piece of paper more than once—fine in theory, impossible in practice. What were you supposed to do with a memo about a meeting next week? Allen remembered a tool from his travel-agent days, the tickler file. The meeting memo, like an airplane ticket, could be filed in a folder for the day it was needed. That way the desk would remain uncluttered, and the memo wouldn't distract you until the day it

was needed. Allen's tickler file—thirty-one folders for each day of the current month, twelve folders for each of the months—would become so widely copied that his followers used it for the name of a popular lifehacker Web site: [43folders.com](http://43folders.com).

Besides getting paperwork off the desk, the tickler file also removed a source of worry: Once something was filed there, you knew you'd be reminded to deal with it on the appropriate day. You weren't nagged by the fear that you'd lose it or forget



workshop for writing down those agreements.”

There was, of course, nothing revolutionary about the strategy of listing one’s commitments and goals. The make-a-list strategy had been in every self-help program since Noah’s Ark and the Ten Commandments. But Allen made refinements with the help of a veteran management consultant named Dean Acheson (not the former secretary of state). To help his clients eliminate distractions, Acheson started off by having them write down

everything that had their attention, large and small, professional and personal, distal and proximal, fuzzy and fussy. They didn't have to analyze or organize or schedule anything, but in each case they did have to identify the specific next action to be taken.

“Dean sat me down and had me empty my head,” Allen says. “I’d done a lot of meditating and considered myself highly organized, so I thought I already had my shit together. But I was blown away by the results. I thought, *Look at what this*

*does!"* As Allen went on to work with his own clients, he preached the importance of the Next Action, or NA, as GTDers call it. The to-do list was not supposed to have items like "Birthday gift for Mom" or "Do taxes." It had to specify the very next action, like "Drive to jewelry store" or "Call accountant."

"If your list has 'Write thank-you notes,' that's a fine Next Action, as long as you have a pen and cards," Allen says. "But if you don't have the cards, you'll know subliminally that you can't

write the notes, so you'll avoid the list and procrastinate.”

That distinction might sound easy enough to learn, but people get it wrong all the time. When Allen hears that John Tierney has been inspired by the book to install a GTD organizer on his smartphone, Allen promptly offers to bet that most of the items on the Next Action list won't be immediately doable. Sure enough, he finds the list dominated by imperatives like “Contact mint.com researchers” or “Consult Esther Dyson about self-

control”—much too vague for GTD standards.

“How are you going to contact or consult them?” Allen asks. “Do you already have the phone number or e-mail address? Have you decided whether to call or e-mail? That dumb little distinction matters. Everything on that list is either attracting or repulsing you. If you say ‘Consult Esther’ because you haven’t finished thinking exactly what you’re going to do next, there’s a part of you that doesn’t want to look at the list. You’re walking around

with this subliminal anxiety. But if you put down “E-mail Esther,’ you think, *Oh, I can do that,* and you move forward and feel you’ve finished something.”

A few years ago, when the technology writer Danny O’Brien sent a questionnaire asking seventy of the most “sickeningly overprolific” people he knew for their organizational secrets, most said they didn’t use special software or other elaborate tools. But a good many did say they followed the GTD system, which

doesn't require anything more complicated than pen, paper, and folders. As yet there's no body of peer-reviewed research comparing GTDers with a control group. But there is evidence in the psychological literature of the mental stress that Allen observed. Psychologists have also been studying how to eliminate the monkey mind. They just use a different term for it.

## The Zeigarnik Effect

The discovery began, according to the legend

among psychologists, with a lunch in the mid-1920s near the University of Berlin. A large group from the university went to a restaurant and placed their orders with a single waiter, who didn't bother writing anything down. He simply nodded. Yet he served everyone's food correctly, a feat of memory that impressed the group. They finished eating and left the restaurant, whereupon one person (the legend is unclear on exactly who) returned to retrieve an item that had been left behind. The person spotted



Lewin, pondered this experience and wondered if it pointed to a more general principle. Did the human memory make a strong distinction between finished and unfinished tasks? They began observing people who were interrupted while doing jigsaw puzzles. This research, and many studies in the following decades, confirmed what became known as the Zeigarnik effect: Uncompleted tasks and unmet goals tend to pop into one's mind. Once the task is completed and the goal reached, however,



thought. That's why when Bill Murray in *Groundhog Day* keeps shutting off "I Got You Babe" on his clock radio, the tune keeps going through our minds (and keeps driving him crazy). And that's why this kind of ear worm is so often an awful tune rather than a pleasant one. We're more likely to turn off the bad one in midsong, so it's the one that returns to haunt us.

Why would the mind inflict "I Got You Babe" on itself? Psychologists have generally assumed that earworms are an

unfortunate byproduct of an otherwise useful function: the completion of tasks. How the Zeigarnik effect works has been explained by various theories over the years, including two rival hypotheses that dominated the debate. One hypothesis was that the unconscious mind is keeping track of your goals and working to make sure they're accomplished, so these stray conscious thoughts are actually a reassuring sign that your unconscious will stay on the case until the job is done. The rival



about their most important final examination. Others, in a control condition, thought about the most important party pending on their social calendar. Among the ones who thought about the exam, half were also told to make specific plans of what, where, and when they would study. But nobody did any actual studying during the experiment.

Then everyone performed a task that contained a subtle measure of the Zeigarnik effect. They were given word fragments and instructed





Some were told to write about some tasks they had recently completed. Others were told to write about tasks that were unfulfilled and needed to be done soon. A third group was also told to write about unfulfilled tasks, but also to make specific plans for how they would get these done. Then everyone went on to what they were told was a separate and unrelated experiment. They were assigned to read the first ten pages of a novel. As they read, they were checked periodically to ascertain whether their

minds were wandering from the novel. Afterward, they were asked how well they had focused and where, if anywhere, their minds had wandered. They also were tested on how well they understood what they'd read.

Once again, making a plan made a difference. Those who'd written about unfulfilled tasks had more trouble keeping their minds focused on the novel—unless they'd made a specific plan to complete the task, in which case they reported relatively little mind wandering and



reminder that continues unabated until the task gets done. The persistence of distracting thoughts is not an indication that the unconscious is working to finish the task. Nor is it the unconscious nagging the conscious mind to finish the task right away. Instead, the unconscious is asking the conscious mind to *make a plan*. The unconscious mind apparently can't do this on its own, so it nags the conscious mind to make a plan with specifics like time, place, and opportunity. Once the plan



done next, and under what circumstances. But once you make that plan—once you put the meeting memo in the tickler file for Wednesday, once you specify the very next action to be taken on the project—you can relax. You don't have to finish the job right away. You've still got 150 things on the to-do list, but for the moment the monkey is still, and the water is calm.

## **Zero Euphoria**

Upon arriving at Drew Carey's office, David Allen

began where he always begins: the collection of *stuff*. This is a broadly encompassing term. Stuff, as defined in *Getting Things Done*, is “anything you have allowed into your psychological or physical world that doesn’t belong where it is, but for which you haven’t yet determined the desired outcome and the next action step.” Or, as Carey defined it, all the crap in his office.

Then came the second phase of the GTD system, the processing of the stuff, when Carey had to decide whether to do it, delegate

it, defer it, or drop it. If something didn't require action, it could be either thrown out or filed away for future reference. Stuff requiring action that was part of a multistep project, like Carey's preparations to emcee a charity benefit dinner honoring Archbishop Desmond Tutu, had to be grouped together in a project list or in a folder on the computer or in a file cabinet. By going through all the paperwork, all the unanswered e-mails, all the other unfinished tasks in his computer or on his mind, Carey identified

dozens of personal and business projects, which was typical. Allen's clients usually have between thirty and one hundred projects, each with at least a couple of tasks, and they spend a full day or two to complete the great initial purging and sorting and processing. After Carey identified the projects, he had to single out the specific Next Action for each project. What was the very next thing to do for the charity dinner? As Carey worked through all the stuff, Allen sat in his office all day long.

“He’d honestly sit there and watch me do my-emails,” Carey says.

“Whenever I’d get stuck he’d say, ‘What’s going on?’ And I’d tell him, and he’d go, ‘Do this.’ And I would do it. He was very decisive about it. There would be only a few times when he’d say, ‘It could be a this or a that. What are you going to do with it?’” Allen taught him to set up separate folders for phone calls and e-mails, to put vague projects in a “Someday/Maybe” folder, and to follow the Two-Minute Rule: If something





pile of letters and a ton of e-mails in your face,” Carey says. “You’re not going to do your very best work. But if you know the other stuff is taken care of, you can concentrate on your writing. You can be more creative.” Ultimately, that’s the selling point of GTD in corporate offices and far beyond. That’s the reason that comedians and artists and rock musicians rhapsodize about Allen’s lists and folders.

“Whether you’re trying to garden or take a picture or write a book,” Allen says, “your ability to make









## 4: DECISION FATIGUE

Man who man  
would be,  
Must rule the  
empire of  
himself; in it  
Must be  
supreme,  
establishing his  
throne

On vanquished  
will, quelling the  
anarchy  
Of hopes and  
fears, being  
himself alone.











f. Close the Web page, turn on C-SPAN, and take a cold shower.

Not a very tough call, is it? So why did Eliot Spitzer have such a tough time with it when he was the governor of New York? By choosing *c* (Kristen), he joined the long list of famously shrewd politicians and corporate executives who have destroyed their careers with an inexplicably dumb decision. Spitzer, who had targeted prostitution in his days as a prosecutor, not only arranged a hotel tryst with Kristen but even sent

money to the Emperor's Club VIP with a traceable transfer from his own bank account. He knew the scrutiny he was under as governor; he had seen firsthand the risks and legal dangers of prostitution. In his long quest to become governor, he'd built a reputation for political savvy, firm discipline, and moral righteousness. Why, once he got his dream job, did he lose his bearings? Did power so warp his judgment that he felt invincible, or was he a narcissist all along? Did he



hooker, when the governor of South Carolina snuck off to Buenos Aires to see his girlfriend, when Bill Clinton took up with an intern, they were all subject to the occupational hazard that comes with being, as President George W. Bush once described himself, “the decider.” The problem of decision fatigue affects everything from the careers of CEOs to the prison sentences of felons appearing before weary judges. It influences the behavior of everyone, executive and nonexecutive, every day.

Yet few people are even aware of it. When asked whether making decisions would deplete their willpower and make them vulnerable to temptation, most people say no. They don't realize that decision fatigue helps explain why ordinarily sensible people get angry at their colleagues and families, splurge on clothes, buy junk food at the supermarket, and can't resist the car dealer's offer to rustproof their new sedan.

This hazard was first identified at Baumeister's

lab by Jean Twenge, a postdoctoral student who took up self-control research at the same time that she was planning her wedding. As she read up on the lab's previous experiments, like the one showing how self-control was depleted by the act of resisting chocolate chip cookies, she was reminded of a recent and quite draining personal experience: registering for wedding gifts, that odd tradition of enlisting a corporation to help with extorting gifts from family and friends. Although it's

















about their experiences in the stores that day and then asked to solve some simple arithmetic problems. The researchers politely asked them to do as many as possible but said they could quit at any time. Sure enough, the shoppers who'd already made the most decisions in the stores gave up the quickest on the math problems. When you shop till you drop, your willpower drops, too. On a practical level, the experiment demonstrated the perils of marathon shopping. On a theoretical

level, the results of all these experiments raised a new question: What kinds of decisions deplete the most willpower? Which choices are the hardest?

## Crossing the Rubicon

Psychologists distinguish two main types of mental processes, automatic and controlled. Automatic processes, like multiplying 4 times 7, can be done without exertion. If someone says “4 times 7,” 28 probably pops into your head whether you want it to or not—that’s why the

process is called automatic. In contrast, computing 26 times 30 requires mental effort as you go through the steps of multiplying to come up with 780. Difficult mathematical calculations, like other logical reasoning, require willpower as you follow a set of systematic rules to get from one set of information to something new. You often go through steps like these in making a decision, through a process that psychologists call the Rubicon model of action phases, in honor of the river that separated Italy from the Roman province







nobody bought a computer at the end).

By random assignment, each participant in the study was given one of three tasks. Some were told to look at several features relevant to a computer but not make a decision. They were instructed to think about the options and prices and to form preferences and opinions, but not to make a definite selection. The purpose of this condition was to duplicate the predecision thinking without the actual deciding.

Another group was handed a list of selections and told to configure the computer. They had to go through the laborious, step-by-step process of locating the specified features among the arrays of options and then clicking on the right ones. The purpose was to duplicate everything that happens in the postdecisional phase, when the choice is implemented. The third group had to choose which features they wanted on their customized computers. They didn't simply ponder











acquaintance than for oneself. Even though it might seem difficult to choose a sofa for an acquaintance whose taste you don't know, that difficulty is apparently offset by not caring a great deal about the outcome. After all, you won't have to look at the sofa every day. The other side of the Rubicon looks less scary when you know someone else is going to end up there.

# The Judge's Dilemma (and the Prisoner's Distress)

Four men serving time in Israeli prisons recently asked to be released on parole. Their cases were heard by a board, consisting of a judge, a criminologist, and a sociologist, that periodically met for a daylong session to consider prisoners' appeals. There were certain similarities to the four cases. Each of the prisoners was a repeat offender, having served a previous term in prison for a separate offense. Each





school of scholars treats it as a system of rules to be administered impartially: the classic image of a blindfolded Lady Justice weighing the scales. Another school emphasizes the importance of human foibles, not abstract rules, in determining verdicts. These legal realists, as they're known, are often caricatured as defining *justice* to be “what the judge ate for breakfast.”

Now their definition has been tested by a team of psychologists led by Jonathan Levav of Columbia University and



money. But there was also the risk that the paroled prisoner would go on to commit another crime.

On average, each judge approved parole for only about one of every three prisoners, but there was a striking pattern to the decisions of all the judges, as the researchers found. The prisoners who appeared early in the morning received parole about 65 percent of the time. Those who appeared late in the day won parole less than 10 percent of the time. Thus, the odds favored the prisoner in our

Case 1, who appeared at 8:50 A.M., the second case of the day—and he did in fact receive parole. But even though the prisoner in Case 4 was serving the same sentence for the same crime—fraud—the odds were against him when he appeared (on a different day) at 4:25 P.M. Like most of the other prisoners who appeared late in the afternoon, he was denied parole.

The change from the morning to the afternoon didn't occur at a steady rate, though. There were other striking patterns

during the day. In midmorning, usually a little before 10:30, the parole board would take a break, and the judges would be served a sandwich and a piece of fruit. That would replenish the glucose in their bloodstreams. (Remember the studies about how children who skipped breakfast would suddenly start to behave and learn better after the midmorning snack?) The prisoners who happened to appear just before the break had only about a 15 percent chance of getting







isolated phenomenon. It occurs naturally in all kinds of situations. The link between willpower and decision making works both ways: Decision making depletes your willpower, and once your willpower is depleted, you're less able to make decisions. If your work requires you to make hard decisions all day long, at some point you're going to be depleted and start looking for ways to conserve energy. You'll look for excuses to avoid or postpone decisions. You'll look for the easiest and

safest option, which often is to stick with the status quo: Leave the prisoner in prison.

Denying parole can also seem like the easier call to the judge because it leaves more options open: The judge retains the option of paroling the prisoner at a future date without sacrificing the option of keeping him securely in prison right now. Part of the resistance against making decisions comes from the fear of giving up options. The more you give up by deciding, the more you're afraid of cutting off

something vital. Some students choose double majors in college not because they're trying to prove something or because they have some grand plan for a career integrating, say, political science and biology. Rather, they just can't bring themselves to say no to either option. To choose a single major is to pronounce judgment on the other and kill it off, and there's abundant research showing that people have a hard time giving up options, even when the options aren't doing them











but were also the pickiest in listing the attributes of their desired partners. The average personal ad in *New York* magazine listed 5.7 criteria required in a partner, significantly more than second-place Chicago's average (4.1 criteria) and about twice the average for the other three cities. As one woman in New York put it in her ad: "Not willing to settle? Neither am I!" She claimed to be someone who "loves all NY has to offer," but her definition of "all" did not include any male New Yorkers who were not



pickiness. They've monitored tens of thousands of people seeking love through either an online dating service or speed-dating events. At the online dating service, customers filled out an extensive questionnaire about their attributes. In theory, that detailed profile should have helped people find just the right mate, but in practice it produced so much information and so many choices that people became absurdly picky. The researchers—Gunter Hitsch and Ali Hortacsu of the University of Chicago,

and Dan Ariely of Duke—found that the online customers typically go out with fewer than 1 percent of the people whose profiles they check out. Romance seekers have much better luck at speed-dating events, which are generally limited to a dozen or two dozen people. Each person spends several minutes talking to each of the potential partners. Then all the participants turn in scorecards indicating which people they'd like to see again, and those with mutual interest are matched up. The





additional feature was introduced: If they stayed out of any room for a while, its door would start shrinking and eventually disappear, effectively closing the door permanently. That

prospect so bothered players that they would jump back into a room to keep the door open even though the move reduced their overall earnings.

“Closing a door on an option is experienced as a loss, and people are willing to pay a price to avoid the emotion of loss,” Ariely says. Sometimes that



# **Lazy Choices**

To compromise is human. In the animal kingdom, you don't see a lot of protracted negotiations between predators and their victims. The ability to compromise is a particularly advanced and difficult form of decision making—and therefore one of the first abilities to decline when our willpower is depleted, particularly when we take our depleted selves shopping.

Shoppers face continual compromises between quality and price, which don't always change in the





easy strategy if someone else is paying).

Decision fatigue leaves us vulnerable to marketers who know how to time their sales, as was demonstrated by Jonathan Levav, the psychologist, in experiments involving tailored suits and new cars. The idea for these experiments, like Jean Twenge's, also happened to come during the preparations for a wedding. At his fiancée's suggestion, Levav visited a tailor to have a bespoke suit made and began going through



to use in a couple of experiments conducted with Mark Heitmann of Christian-Albrechts University in Germany, Andreas Hermann at the University of St. Gallen in Switzerland, and Sheena Iyengar of Columbia. One involved asking MBA students in Switzerland to choose a bespoke suit; the other was conducted at German car dealerships by discreetly observing customers ordering options for their new sedans. The car buyers—and these were real customers spending their own money—had to









greets you as you wait in line at the cash register? Gossipy tabloids and chocolate bars. Not for nothing are they called impulse purchases. It's no accident that the candy is presented just at the moment when your impulse control is weakest—and just when your decision-fatigued brain is desperate for a quick hit of glucose.

## Choose Your Prize

Suppose, as a reward for finishing this chapter, we offered you a choice of two







versus larger-but-later rewards.

Another reason for choosing the quick cash emerged in an ingenious study by Margo Wilson and Martin Daly of McMaster University. These evolutionary psychologists began the experiment by asking young men and women to choose between a check dated tomorrow versus a check for a larger amount that could be cashed on a later date. Then, ostensibly as part of an experiment to measure preferences, the subjects were asked to rate

photographs of people and cars. The photos of people were taken from [hotornot.com](http://hotornot.com), the Web site where people submit photos of themselves and are then rated for attractiveness on a 10-point scale. Some of the young men and women saw photos of the opposite sex who had already been rated on the Web site as very hot (above 9); some of the participants saw not-hot photos (around 5). Other participants rated pictures of cars, with some seeing hot cars and others looking at clunkers.





women shifted toward getting an immediate reward instead of waiting for a larger payoff in the future. Apparently, the sight of an attractive woman makes men want cash right away. They focus on the present rather than the future. This effect is probably deeply rooted in the psyche and in the evolutionary past. Modern DNA research has revealed that most men in the past did not leave a line of descendants—their odds of reproducing were only half as high as the typical woman's. (For every

prolific patriarch like Genghis Khan, there were lots of other men whose genetic lines died out.) Men today are therefore descended from the minority of men who managed to reproduce, and their brains seem primed for a quick response to any opportunity to improve their reproductive odds. Other studies have shown that the sight of an attractive woman (but not an unattractive woman) activates the male brain's nucleus accumbens, which is connected to the part of the brain activated by







# **5: WHERE HAVE ALL THE DOLLARS GONE?**

*The Quantified Self Knows*

I have never known a man who was too idle to attend to his affairs & accounts, who did not get into difficulties; & he who habitually is in money difficulties, very rarely keeps



Not long ago, a spendthrift sought help for his credit card debt from a team of researchers who called themselves neuroeconomists. They were monitoring the brains of people in the act of shopping—or at least as close to that as you can get inside a functional MRI machine in a lab at Stanford University. The researchers measured activity in the brain's insula region as people contemplated spending money on gadgets, books, and assorted tchotchkies.

This brain region ordinarily lights up when you see or hear something distasteful, and that's just what happened when the tightwads in the study saw the prices of the items. But when a typical spendthrift went shopping for the same items, the insula didn't register the same sort of disgust—not even when the brain considered spending a good chunk of hard-earned money on a color-changing “mood clock.”

The one bit of hope for fiscal rectitude came in a separate experiment conducted at the request of

this one particularly remorseful spendthrift. In the interest of full disclosure, we should note that this spendthrift was Tierney, before Baumeister began teaching him about self-control. Sure enough, the MRI test confirmed his spendthrift tendencies by revealing just how blasé his insula remained as he prepared to spend money for gizmos he didn't need. But then the researchers tried an intervention. They flashed an image of Tierney's most recent Visa bill—and got a reaction! At last, there was some sign of



own spending, just as Charles Darwin had advised his spendthrift son. But this was much easier said than done, until Aaron Patzer came along.

Patzer was the kind of son Darwin would have liked—a fastidious bookkeeper who kept his checkbook balanced as a teenager and then went on to spend his Sundays dutifully categorizing all his purchases with Quicken software. But at one point, while working for a software start-up in Silicon Valley, he stopped tracking the spending, and when he

sat down to catch up with his finances he faced the prospect of categorizing hundreds of transactions. It occurred to him that there must be a better way to spend his time. Why couldn't a computer do this for him? Why couldn't he outsource this job? Wasn't this the kind of grunt work meant for silicon chips? The result of this was a company, Mint.com, so successful that within two years it was sold for \$170 million to Intuit, the maker of Quicken software.

Mint's computers are now tracking the finances





our powers by making *us* more self-aware.

Self-awareness is a most peculiar trait among animals. Dogs will bark angrily at a mirror because they don't realize they're looking at themselves, and most other animals are similarly clueless when they're subjected to a formal procedure called the mirror test. First the animal is dabbed with a spot of odorless dye, then it's put in front of a mirror to contemplate this strange-colored spot. The test is to see whether the animal touches the spot or





awareness if it makes you feel miserable?

## I'm Self-aware, Therefore I...?

In the 1970s, social psychologists studying subjects in self-conscious situations began to understand why self-awareness developed in humans. The researchers who pioneered these procedures, Robert Wicklund and Shelley Duval, were initially mocked by colleagues who thought these studies quaint and not necessarily

scientific. But the eventual results were too intriguing to ignore. When people were placed in front of a mirror, or told that their actions were being filmed, they consistently changed their behavior. These self-conscious people worked harder at laboratory tasks. They gave more valid answers to questionnaires (meaning that their answers jibed more closely with their actual behavior). They were more consistent in their actions, and their actions were also more consistent with their values.









Still, even if people mostly compare themselves to easy standards that make them feel good, that doesn't explain the evolution of human self-awareness. Nature doesn't really care whether you feel good. It selects for traits that improve survival and reproduction. What good is self-awareness for that? The best answer came from the psychologists Charles Carver and Michael Scheier, who arrived at a vital insight: *Self-awareness evolved because it helps self-regulation.* They had









hardest parts of a hangover is the return of self-awareness, because that's when we resume that crucial task for a social animal: comparing our behavior with the standards set by ourselves and our neighbors.

Keeping track is more than just knowing where things are. It means knowing where things are in relation to where they should be. Our ancestors lived in groups that rewarded members for living up to the common values, norms, and ideals. Therefore, people who



# The Quantified Self

Anthony Trollope believed it unnecessary—and inadvisable—to write for more than three hours a day. He became one of the greatest and most prolific novelists in history while holding a full-time job with the British Post Office. He would rise at five-thirty, fortify himself with coffee, and spend a half hour reading the previous day's work to get himself in the right voice. Then he would write for two and a half hours, monitoring the time with a watch placed on the table. He forced himself to

















computer-use statistics provided in the paragraph above were compiled by RescueTime by averaging the behavior of its hundreds of thousands of users. The founder of RescueTime, Tony Wright, was surprised to see that nearly a third of his day was spent on what he calls “the long tail of information porn”—visits to Web sites unrelated to his chief work. The typical visit was only a couple of minutes, but together they consumed two and a half hours a day.

This sort of tracking sounds Orwellian to some people, but it's part of one of the fastest-growing industries in Silicon Valley. The popularity of smartphones and other devices means that people are spending more and more time connected, and increasingly they're using connectivity to track their behavior: what they eat, how far they walk, how long they run, how many calories they burn, how their pulses vary, how efficiently they sleep, how quickly their brains operate, how their moods

change, how often they have sex, what affects their spending, how often they call their parents, how long they procrastinate.

In 2008, Kevin Kelly and Gary Wolf created a Web site called Quantified Self, or QS, catering to users of self-regulation technology. The QS movement is still small and heavily geeky, but already it has spread far from Silicon Valley, and devotees in cities around the world are convening—in person—to talk gadgets, share data, and encourage one another.







more sleep, and my sleep number would look better in the morning. In many ways, it frees me to do the right thing because I can blame my behavior on the numbers.”

Thanks to companies like [Mint.com](http://Mint.com), it's easier than ever for people to follow Charles Darwin's advice about tracking finances, but these new tools are doing more than just the grunt work of monitoring behavior. Keeping track is the first step, but it's not necessarily enough. Thomas Jefferson was







of short-term and long-term goals—taking a vacation, buying a home, saving up for retirement—and then get progress reports.

“Mint will help you set a goal and a timetable and then watch your spending,” Patzer says. “It’ll say, If you cut back one hundred dollars a month on restaurants, you can retire 1.3 years sooner or buy your BMW twelve days sooner. You don’t think about these goals on a day-to-day basis. You want that iPad. You want that coffee. You want to go out with







you'll hate yourself," Patzer says. "If you're spending \$500 a month on restaurants and you try to set a new budget of \$200, you'll end up saying, '*Forget that!*' It's too hard. But if you reduce to \$450 or \$400, you can make that without radically changing your lifestyle. Then the next month you can go another \$50 or \$100. Keep the monthly changes to 20 percent until you get things under control."

# Not-So-Invidious Comparisons

Once you've taken the first two steps in self-control—setting a goal and monitoring your behavior—you're confronted with a perennial question: Should you focus on how far you've come or how much remains to be done? There's no simple, universal answer, but it does make a difference, as demonstrated in experiments by Ayelet Fishbach of the University of Chicago. She and a Korean colleague, Minjung



the ones who reflected on what they had not yet achieved. But the latter were more motivated to reach their goals and then move on to more challenging new projects. Those who focused on what they had already done did not seem eager to move on to more difficult and challenging tasks. They were reasonably content with where they were and what they were currently doing. For contentment, apparently, it pays to look at how far you've come. To stoke motivation and



user. Flotrack and Nikeplus and other sites let runners share their mileage and times with friends and teammates. You can get gadgets and smartphone apps to compare your energy usage with your neighbors—and the comparisons make a difference, as demonstrated in a study of utility customers in California. When people got bills comparing their monthly electricity usage with the neighborhood average, the people in the above-average homes









That way, when his mood darkens, his friends see the data and get in touch with him.

“The digital tools and the data are just catalysts for people to motivate themselves and one another,” Dyson says. “You find the model that works best for you. Maybe you compare numbers with your friends because you don’t want to be ashamed in front of them. Or you don’t want to let down the team. Different people are motivated in different ways.”





prevalent than neurotic overspending, affecting some one in five people. Brain scans have similarly pinpointed the culprit: an insula that reacts with hyperactive horror at the prospect of parting with cash.

The result is a condition that researchers call hyperopia (the opposite of myopia), in which you focus too much on the future at the expense of the present. Such penny-pinching can waste time, alienate friends, drive your family crazy, and make you miserable. The studies



# **6: CAN WILLPOWER BE STRENGTHENED?**

*(Preferably Without  
Feeling David Blaine's  
Pain)*

The more the body suffers, the more the spirit flowers.

--*David Blaine's philosophy, borrowed from St. Simeon Stylites, a fifth-century ascetic who lived for decades*

# *atop a pillar in the Syrian desert*

We wish to consider a scientific explanation for David Blaine.

We don't mean an explanation for *why* Blaine does what he does. That's impossible, at least for psychologists, and probably for psychiatrists, too. When he is not doing his famous magic tricks, Blaine works as a self-described endurance artist, performing feats involving willpower instead of illusion. He stood for



four pounds in forty-four days. He spent those forty-four days without food suspended above the Thames River in a sealed transparent box, inside which the temperatures ranged from subfreezing to 114 degrees Fahrenheit.

“Breaking the comfort zone seems to be the place where I always grow,” says Blaine, echoing St. Simeon’s notion that suffering makes the spirit flower. We won’t attempt to analyze that rationale. The *why* is beyond our ken.

We’re interested in the *how* of Blaine’s feats. How



immediately give up when everything went wrong during his attempt to break the world record for breath holding? He'd spent more than a year preparing for this feat by learning to fill his lungs with pure oxygen and then remain immobile under water, conserving oxygen by expending as little energy as possible. Blaine could relax so completely, both mentally and physically, that his heart rate would drop to below fifty beats per minute, sometimes below twenty. During a practice session at a swimming pool







racing pulse and the excruciating buildup of carbon dioxide inside his body.

By the eighth minute, he was barely halfway to the record and convinced he wouldn't make it. By the tenth minute, his fingers were tingling as his body shunted blood from the extremities to preserve vital organs. By the twelfth minute, his legs were throbbing and his ears were ringing. By the thirteenth minute, he feared that the numbness in his arm and the pain in his chest were precursors













day fast with just water and wine. Once he became a professional endurance artist, he reverted to the same techniques before a stunt, including little rituals that had nothing directly to do with the stunt.

“Some sort of OCD [obsessive-compulsive disorder] kicks in whenever I’m about to do a long-term challenge,” he told us. “I make tons of weird goals for myself. Like, when I’m jogging in the park in the bike lane, whenever I go over a drawing of a biker, I have







for anyone else, you would need to test them with people who were not endurance artists—the sort of people who would never regard a saint living on a pillar as a role model.

## Willpower Workouts

To social scientists, the idea of strengthening willpower didn't seem very promising at first glance. After all, the ego-depletion experiments in Baumeister's lab showed that exertions of willpower left people with less self-control. Choosing radishes



experiments to show ego depletion, discussed strength-building exercises with his advisers, Baumeister and Dianne Tice. Because no one had any idea what might work, they decided on a scattershot approach. They would assign different participants different exercises, and see if any new strength developed. One obvious problem was that some people would start out with more self-control than others, just as some athletes would start out with bigger muscles and more stamina. To



was involved in “character building”—or, more precisely, which mental resources had to be fortified. Did acts of self-control deplete you because of the energy needed to override one response in favor of another? Or was it the energy required to monitor your behavior? Or the energy to alter your state of mind?

One group of students was sent home with instructions to work on their posture for the next two weeks. Whenever they thought of it, they were to





winner, the researchers elected to make this group twice as large as the other groups, so as to get the most statistically reliable results.

But the researchers' hunch was dead wrong. Their favorite strategy turned out to do no good at all. The large group that practiced controlling emotions for two weeks showed no improvement when the students returned to the lab and repeated the self-control tests. In retrospect, this failure seems less surprising than it did back then. Emotion







strength: power and stamina. At the first lab session, participants began by squeezing a spring-loaded handgrip for as long as they could (which had been shown in other experiments to be a good measure of willpower, not just physical strength). Then, after expending mental energy through the classic try-not-to-think-of-a-white-bear task, they did a second handgrip task to assess how they fared when willpower was depleted. Two weeks later, when they returned to the lab after working on their posture,



to improve your own willpower, or you could try other exercises. There's nothing magical about sitting up straight, as researchers subsequently discovered when they tested other regimens and found similar benefits. You can pick and choose from the techniques they studied, or extrapolate to create your own system. The key is to concentrate on changing a habitual behavior.

One simple way to start is by using a different hand for routine tasks. Many habits are linked to your



hands between eight A.M. and eight P.M. This lets people revert to their familiar habits in the evening, when they are already physically tired and mentally depleted from the day's activities. (Note to lefties: This strategy may not be as effective for you, because many left-handed people are actually fairly ambidextrous and have had more practice using their right hands in a world oriented for right-handed people. So using your right hand may not do as much for your willpower: No strain, no gain.)







Head Start boosted intellectual performance while the students were enrolled, but the gains seemed to fade pretty quickly once they left. By and large, there didn't seem to be much you could do to increase the intelligence you were born with. That made self-control seem especially precious, and social scientists set out testing systematic programs for improving it. The result, over the course of a decade, was a mix of successes and flops as researchers discovered the difficulty in

getting people to do the assigned exercises. It wasn't enough to find a workout that could theoretically build willpower. It had to be a workout that worked.

## **From Strength to More Strength**

Some of the most successful strategies were developed by two Australian psychologists, Meg Oaten and Ken Cheng. They generally recruited people who wanted to improve one specific aspect of their lives and could be



directly related to the people's goals, so that they would be encouraged by seeing the benefits of complying.

One of the experiments involved people who all wanted to improve their physical fitness but hadn't been regular exercisers. Some immediately received a membership in a gym and met with one of the experimenters to form a plan for regular workouts. They kept a log in which they recorded every workout and session. Another experiment involved

students who wanted to improve their study habits. The ones who got the immediate help met with an experimenter to set long-term goals and assignments, and to break down the tasks into smaller steps. Their study plan was coordinated with other obligations (like a side job), and the students kept a study log and diary to monitor progress. Yet another experiment gave people a chance to improve their money management by meeting with an experimenter to draw up a budget and plan ways to



The experimental subjects had to watch a computer screen with six black squares. Three of the squares would flash briefly, and then all the squares would start sliding around the screen, randomly switching positions. After five seconds, each participant had to use a computer mouse to indicate which of the squares were the ones that had flashed initially. Thus, to do well, you had to make a mental note of which squares to watch and then follow them as they moved around. What made it extra



first time was soon after they arrived at the lab and were fresh. The second came a bit later, after their willpower had been depleted.

The pattern of results was largely the same in all these experiments. As the weeks went by, the people who regularly exercised self-control in doing physical workouts, studying, or money management got progressively better at ignoring Eddie Murphy's comedy routine and tracking the moving squares. In particular, the

main improvements were found in resisting the effects of depletion (that is, on the last self-control test administered at each lab session). Thus, exercise increased people's stamina, allowing them to hold out against temptations even when their mental resources had been depleted.

Not surprisingly, they also advanced toward their goals. Those in the fitness program got fitter; those working on study discipline got more schoolwork done; the people in the money-management program

saved more money. But—and here was a truly pleasant surprise—they also got better at other things. The students who did the study-discipline program reported doing physical workouts a bit more often and cutting down on impulsive spending. Those in the fitness and money-management programs said they studied more diligently.

Exercising self-control in one area seemed to improve all areas of life. They smoked fewer cigarettes and drank less

alcohol. They kept their homes cleaner. They washed dishes instead of leaving them stacked in the sink, and did their laundry more often. They procrastinated less. They did their work and chores instead of watching television or hanging out with friends first. They ate less junk food, replacing their bad eating habits with healthier ones. You might think that people who start doing physical workouts would naturally start eating better, but in fact the reverse has often been observed in other studies:



food. If anything, they began spending *more* money on healthy food, apparently because of an overall increase in self-control.

Some of the people even reported improvements in controlling their tempers, an intriguing finding that was tested in a subsequent study of domestic violence by Oaten together with Eli Finkel of Northwestern University and other psychologists. The researchers asked people about their likelihood to become physically aggressive toward their





Without realizing it, people gained a wide array of benefits in areas of their lives that had nothing to do with the specific exercises they were performing. And the lab tests provided an explanation:

Their willpower gradually got stronger, so it was less readily depleted. Focusing on one specific form of self-control could yield much larger benefits, just as self-experimenters from Ben Franklin to David Blaine had maintained. The experiments showed that you didn't have to start off with the exceptional self-



# The Toughest Stunt of All

Before we told David Blaine about the scientific research into willpower, we asked him which of his feats had been the most difficult. This was not a simple choice for him, understandably. So many ordeals, so many varieties of agony. The seventeen-minute breath-hold on *Oprah* was awful but brief. For sustained terror, there was the last part of his thirty-five-hour stint standing on the pillar, when he was fighting hallucinations and the urge

to nod off (and fall eight stories to his death). For prolonged pain, there were the forty-four days without food in the Plexiglas box above the Thames. Not only did he have to watch people below eating merrily away, but he also had to look at a giant advertisement for batteries with the slogan “When Willpower Isn’t Enough.” He tried to appreciate the humor of the ad, but that got progressively difficult. “By the thirty-eighth day, my mouth was tasting like sulfur because my body was eating its own organs,”





“I started to feel I wasn’t right,” Blaine said. “I’ve been through organ failure, but there’s nothing worse than mental illness. I looked through the ice at a guy standing in front of me and asked him what time it was. He says, ‘Two o’clock.’ I say to myself, *Oh, man, I’m not done with this until ten P.M. That’s eight more hours!* I tell myself it won’t be so bad once there’s only six hours left, so I just have to get through the next two hours. That’s the kind of time-shift technique I use to change perspective so I get through these stunts. I





















## **7: OUTSMARTING YOURSELF IN THE HEART OF DARKNESS**

Self-control is more indispensable than gunpowder.

*—Henry Morton Stanley*

In 1887, Henry Morton Stanley went up the Congo River and inadvertently started a disastrous experiment. This was long after his first journey deep

into Africa, as a journalist in 1871, when he'd become famous by finding a Scottish missionary and reporting the first words of their encounter: "Dr. Livingstone, I presume." Now, at age forty-six, Stanley was a veteran explorer leading his third African expedition. As he headed into an uncharted expanse of rain forest, he left part of the expedition behind in a riverside camp to await further supplies. The leaders of this Rear Column, who came from some of the most prominent families in

Britain, proceeded to become an international disgrace.

Those men, along with a British soldier and doctor who were left in charge of a fort along the route, lost control once Stanley was no longer there to command them. They refused medical treatment to sick natives and allowed Africans under their command to perish needlessly from disease and poisonous food. They kidnapped and bought young African women to keep as sex slaves. When one of the very young

concubines cried to be returned to her mother and father, she was ignored; when another escaped, she was retrieved and trussed to prevent another escape. The British commander of the fort savagely beat and maimed Africans, sometimes stabbing them with a sharp steel cane, sometimes ordering men to be shot or flogged almost to death for trivial offenses. Most of his officers raised no objection. When some Pygmies living near the British fort—a mother and several children—were caught stealing food, parts





appreciated the dangers of the wilderness, but he didn't regard them as insuperable.

For while the Rear Column was going berserk, Stanley was maintaining discipline in a much wilder setting. He and the forward portion of the expedition spent months struggling to find a way through the dense Ituri rain forest. They suffered through torrential rains and waist-deep mud while fending off incessant swarms of stinging flies and biting ants. They were weakened by continual hunger,



explorer in history who endured such sustained misery and terror so deep in the wilderness. Perhaps the only expedition as grueling was the previous transcontinental journey by Stanley that established the sources of the Nile and the Congo rivers. Yet Stanley persevered through all the travails, year after year, expedition after expedition. His European companions marveled at his “strength of will.” Africans called him Bula Matari: Breaker of Rocks. The African aides and porters who survived his





ten-storey edifice of my own self-appreciation and to leave nothing behind but the cellar.” Anton Chekhov declared that one Stanley was worth a dozen schools and a hundred good books. The Russian writer saw Stanley’s “stubborn invincible striving towards a certain goal, no matter what the privations, dangers and temptations for personal happiness,” as “personifying the highest moral strength.”

But the establishment in Britain and much of Europe was always leery of this brash newspaperman

from America, and there were jealous rivals eager to fault his exploration tactics, particularly after the scandal of the Rear Column. In the ensuing century, his reputation plummeted as biographers and historians criticized his expeditions and his association in the early 1880s with King Leopold II, the profiteering Belgian monarch whose ivory traders would later provide the direct inspiration for *Heart of Darkness*. As colonialism declined and Victorian character building lost favor, Stanley

came to seem less like a paragon of self-control and more like a selfish control freak. He was depicted as a brutal exploiter, a ruthless imperialist who hacked and shot his way across Africa. This cruel conquistador was often contrasted with the saintly Dr. Livingstone, the solitary traveler who crossed the continent selflessly looking for souls to save.

But recently yet another Stanley has emerged, a much more intriguing one for modern audiences than either the dauntless hero or the ruthless control freak.



Stanley dichotomy. When thousands of Stanley's letters and papers were unsealed in the past decade, Jeal drew on them to produce a revisionist tour de force, *Stanley: The Impossible Life of Africa's Greatest Explorer*. The acclaimed biography depicts a deeply flawed character who seems all the more brave and humane for his mixture of ambition and insecurity, virtue and fraud. His self-control in the wilderness becomes even more remarkable considering the secrets he was hiding at his core.

## The Empathy Gap

If self-control is partly a hereditary trait—which seems likely—then Stanley began life with the genetic odds against him. He was born in Wales to an unmarried eighteen-year-old woman who went on to have four other illegitimate children by at least two other men. He never knew his father. His mother promptly abandoned him to her father, who cared for him until he died when the boy was six. Another family took him in briefly, but

then one of the boy's new guardians took him on a journey. Told he was going to his aunt's home, the confused boy instead ended up inside a large stone building. It was a workhouse, and the adult Stanley would never forget how, in the moment his deceitful guardian fled and the door slammed shut, he "experienced for the first time the awful feeling of utter desolateness."

The boy, who was then named John Rowlands, would go through life trying to hide the shame of the workhouse and the

stigma of his illegitimate birth. After leaving the workhouse at age fifteen and traveling to New Orleans, he began denying his Welsh roots and pretending to be an American, complete with the accent. He called himself Henry Morton Stanley and told of taking the name from his adoptive father, a wonderfully kind and hardworking cotton trader in New Orleans. In the tales he concocted about his adoptive family, Stanley claimed to be raised by parents who taught self-control. The







The character was becoming more and more developed.” By his twenties he was a successful war correspondent and preacher of self-discipline to his friends. When one of them suggested he take a vacation, he dismissed the idea with a wonderful bit of verbiage (and self-importance): “It is only by railway celerity that I can live.” He wouldn’t even be able to enjoy a vacation, he wrote to his friend, because his conscience would torment him for wasting time. Nothing could interfere with his goal: “I





At home these men had no cause to show their natural savagery . . . they were suddenly transplanted to Africa & its miseries. They were deprived of butcher's meat & bread & wine, books, newspapers, the society & influence of their friends. Fever seized them, wrecked minds and bodies. Good nature was banished by anxiety. Pleasantness was eliminated by toil. Cheerfulness yielded to internal anguish . . . until they became but shadows, morally & physically of what they had been in English society.

Stanley was describing what the economist George Loewenstein calls the “hot-cold empathy gap”: the inability, during a cool, rational, peaceful moment, to appreciate how we’ll behave during the heat of passion and temptation. At home in England, the men may have coolly intended to behave in a virtuous manner, but they couldn’t imagine how different their feelings would be in the jungle. The hot-cold empathy gap is still one of the most common challenges to self-control, albeit in less extreme



food, the immorality of supporting international food corporations. The mother kept buying them anyway but then faced another problem. The cookies kept disappearing. Late in the evening, after partaking of natural substances like wine and cannabis, the commune dwellers' willpower was depleted, and their disapproval of corporate junk food was no match for their cravings for Oreos. Some parents have to hide cookies from their children; this mother found that her child was the *only*

person to whom the location could be revealed. The cookies had to be hidden because the grown-ups suffered from the hot-cold empathy gap. They denounced junk food by day without realizing how much they'd want those evil cookies once they were tired and stoned.

In setting rules for how to behave in the future, you're often in a calm, cool state, so you make unrealistic commitments. “It’s really easy to agree to diet when you’re not hungry,” says Loewenstein, a professor at Carnegie





ratings to all those possibilities. What had seemed highly unlikely began to seem more within the realm of possibility. It was just an experiment, but it showed how the wilderness might find them out, too. Turn up the heat, and the unthinkable becomes surprisingly thinkable.

We've said that willpower is humans' greatest strength, but the best strategy is not to rely on it in all situations. Save it for emergencies. As Stanley discovered, there are mental tricks that

enable you to conserve willpower for those moments when it's indispensable. Paradoxically, these techniques require willpower to implement, but in the long run they leave you less depleted for those moments when it takes a strong core to survive.

## The Ties That Bind

Stanley first encountered the miseries of the African interior at the age of thirty, when the *New York Herald* sent him to find

Livingstone somewhere in the mysterious continent. He spent the first part of the journey slogging through a swamp and struggling with malaria, which left him delirious for a week with what he called “its insane visions, its frenetic brain-throbs & dire sickness.” Then the entire expedition narrowly escaped being massacred during a local civil war. After six months of travel, so many men had died or deserted that, even after acquiring replacements, Stanley was down to thirty-four men, barely a quarter





success: precommitment. The essence of this strategy is to lock yourself into a virtuous path. You recognize that you'll face terrible temptations to stray from the path, and that your willpower will weaken. So you make it impossible—or somehow unthinkably disgraceful or sinful—to leave the path. Precommitment is what Odysseus and his men used to get past the deadly songs of the Sirens. He had himself lashed to the mast with orders not to be untied no matter how much he pleaded to be









“Public Humiliation Diet” followed by a writer named Drew Magary. He vowed to weigh himself every day and promptly reveal the results on Twitter—which he did, and lost sixty pounds in five months. If you’d rather put someone else in charge of the humiliation, you could install software from Covenant Eyes that will track your Web browsing and then e-mail a list of the sites you visit to anyone you designate in advance—like, say, your boss or your spouse. Or you could sign a “Commitment Contract”

with [stickK.com](http://stickK.com), a company founded by two Yale economists, Ian Ayres and Dean Karlan, and a graduate student, Jordan Goldberg. It allows you to pick any goal you want—lose weight, stop biting your nails, use fewer fossil fuels, stop calling an ex—along with a penalty that will be imposed automatically if you don't reach it. You can monitor yourself or pick a referee to report on your success or failure. The penalty might simply be a round of e-mails from [stickK.com](http://stickK.com) to your designated list of

supporters—friends and relatives, generally, although you could choose some enemies, too. But you can also make it financially costly by setting up an automatic payment from your credit card to charity. For an extra incentive, you can assign the payment to an “anticharity,” which is a group you’d hate to support—like, say, the presidential library of either Bill Clinton or George W. Bush. Not surprisingly, [stickK.com](http://stickK.com)’s users seem to be motivated by financial stakes (just as Stanley was—he knew he

had to come up with stories to sell newspapers and books) and by the presence of a referee. People who draw up a contract without a financial penalty or a referee succeed only 35 percent of the time, whereas the ones with a penalty and a ref succeed nearly 80 percent of the time, and the ones who risk more than one hundred dollars do better than those who risk less than twenty dollars—at least according to what is reported to stickK .com, which doesn't independently verify the results. The true success

rate is presumably lower because some referees are reluctant to report failures that would hurt their friends financially. And whatever the success rate, this is obviously a self-selected sample of people already motivated to change, so it's hard to know exactly how much difference the [stickK.com](#) contracts make. But the efficacy of contracts with monitors and penalties has been independently demonstrated in a more rigorous offline experiment, conducted by Karlan and other



much as they wanted, or nothing at all (and many of the smokers ended up depositing nothing). At the end of six months, the people would submit to a urine test. If the test found any nicotine in their body, they'd forfeit all the money in the account (which the bank would donate to charity). From a strictly financial standpoint, it was hardly an ideal investment strategy for the smokers who accepted the contract. They could have guaranteed themselves a better return simply by putting the money into a





different stop-smoking program, the smokers offered a commitment contract were nearly 40 percent more likely to be nicotine-free after a year. Given an incentive to temporarily restrain their smoking, they were more likely to make a lasting change in their lives. What began as a precommitment turned into something permanent and more valuable: a habit.

## **The Brain on Autopilot**

Imagine, for a moment, that you are Henry Stanley

awaking on a particularly inauspicious morning. You emerge from your tent in the Ituri rain forest. It's dark, of course. It's been dark for four months. Your stomach, long since ruined on previous African expeditions by parasites, recurrent diseases, and massive doses of quinine and other medicines, is in even worse shape than usual. You and your men have been reduced to eating berries, roots, fungi, grubs, caterpillars, ants, and slugs—when you're lucky enough to find them. The closest thing to a good

meal recently was your donkey, which you shot in order to feed the group. The ravenous men ate every part of it, even fighting over the hooves and desperately licking blood on the ground before it seeped into the soil.

Dozens of people were so crippled—from hunger, disease, injuries, and festering sores—that they had to be left behind at a spot in the forest that is grimly being referred to as Starvation Camp. You've taken the healthier ones ahead to look for food, but they've been dropping dead







his handwriting, by the condition of his journals and books, and by the organization of his boxes,” Jeal said. “He praised the similar neatness of Livingstone’s arrangements. The creation of order can only have been an antidote to the destructive capacities of nature all around him.” Stanley himself offered a similar explanation for his need to shave in the jungle: “I always presented as decent an appearance as possible, both for self-discipline and for self-respect.”







immediate but small reward rather than waiting for a larger but delayed reward. The messy Web site also elicited lower donations to charity. Charity and generosity have been linked to self-control, partly because self-control is needed to overcome our natural animal selfishness, and partly because, as we'll see later, thinking about others can increase our own self-discipline. The orderly Web sites, like the neat lab rooms, provided subtle cues guiding people unconsciously toward self-



by Baumeister working together with Denise de Ridder and Catrin Finkenauer, two Dutch researchers who led an analysis of a large set of published and unpublished studies on people who scored high in self-control as measured in a personality test. These studies reported experiments involving a variety of behaviors, which the researchers divided into a couple of broad categories: mainly automatic or mainly controlled. The researchers assumed, logically enough,







analysis was that self-control was particularly helpful for performance in work and school, while the weakest effects were involved with eating and dieting. Although people with relatively high self-control did a little better at controlling their weight, the effect was much weaker than in other aspects of their lives. (We'll discuss the reason for that disconnect—and the case against dieting—in a later chapter.) Their self-control yielded moderate benefits in helping them to be well adjusted emotionally.

(being happy, having healthy self-esteem, avoiding depression) and to get along with their close friends, lovers, and relatives. But the greatest benefits of their self-control showed up in school and in the workplace, confirming other evidence that successful students and workers tend to rely on good habits. Valedictorians are generally not the sort who stay up studying all night just before the big exam—instead, they keep up with the work all semester long. Workers





diverged sharply. The page-a-day folks had done well and generally gotten tenure. The so-called “binge writers” fared far less well, and many had had their careers cut short. The clear implication was that the best advice for young writers and aspiring professors is: Write every day. Use your self-control to form a daily habit, and you’ll produce more with less effort in the long run.

We often think of willpower in heroic terms, as a single act at a crucial moment in life—sprinting at the end of the marathon,

getting through the pain of childbirth, enduring an injury, dealing with a crisis, resisting the seemingly irresistible temptation, beating the impossible deadline. Those are the feats that remain in memory and make the best stories. Even the most critical biographers of Stanley hailed his bursts of literary productivity on deadline. After finishing that awful trek through the Ituri Forest and returning to civilization, he quickly produced an international bestseller, *In Darkest Africa*. By working from six



## **But Enough About Me**

At age thirty-three, not long after finding Livingstone, Stanley found love. He had always considered himself hopeless with women, but his new celebrity increased his social opportunities when he returned to London, and there he met a visiting American named Alice Pike. She was just seventeen, half his age, and he noted in his diary that she was “very ignorant of African geography, & I fear of everything else.” But he was smitten, and within a month they were engaged.

They agreed to marry once Stanley returned from his next African expedition. He set off from the east coast of Africa carrying her photograph, wrapped in oilskin, next to his heart, while his men lugged the pieces of a twenty-four-foot boat named the *Lady Alice*, which Stanley used to make the first recorded circumnavigations of the great lakes in the heart of Africa. Then, having traveled thirty-five hundred miles, Stanley continued westward for the most dangerous part of the trip. He planned to take the





hundred miles, taking the *Lady Alice* down the Congo River, surviving attacks from cannibals chanting a war cry of “Niama! Niama!”—Meat! Meat! Only half of his companions completed the journey to the Atlantic coast, which took nearly three years and claimed the life of every European except Stanley. Upon reaching civilization, Stanley eagerly sought love letters from his fiancée, but instead he got a note from his publisher with some awkward news (and dubious use of the







patients from their pain by talking to them about anything except their condition, and midwives try to keep women in labor from closing their eyes (which would enable them to focus on the pain). They recognize the benefits of what Stanley called “self-forgetfulness.” He blamed the breakdown of the Rear Column on their leader’s decision to stay put in camp so long, waiting and waiting for additional porters, instead of setting out sooner into the jungle on their own journey. “The cure of their misgivings &



in knowing that my comrades were all the time conscious that I did my best, and that I was bound to them by a common sympathy and aims. This encouraged me to give myself up to all neighbourly offices, and was morally fortifying.

This talk of “common sympathy” and “neighbourly offices” may sound suspiciously self-serving coming from someone with Stanley’s reputation for aloofness and severity. After all, this was the man renowned for the coldest greeting in



Stanley, chronically insecure about his workhouse roots, apparently invented the line afterward to make himself sound dignified. He'd always admired the stiff-upper-lip credo of British gentleman explorers, and he sometimes tried to mimic their sangfroid by affecting a dispassionate air toward his adventures. But he lacked their flair—and their discretion. While they omitted or downplayed the violent encounters and disciplinary tactics on their African expeditions,







during a modern version of Stanley's ordeals: the famous Hell Week test of continual running, swimming, crawling, and shivering that they must endure on less than five hours' sleep. At least three-quarters of the men in each SEAL class typically fail to complete training, and the survivors aren't necessarily the ones with the most muscles, according to Eric Greitens, a SEAL officer. In recalling the fellow survivors of his Hell Week, he points out their one common quality: "They had the ability to step



not a believer? After losing his faith in God and religion at an early age (a loss he attributed to the slaughter he witnessed in the American Civil War), he faced a question that vexed other Victorians: How can people remain moral without the traditional restraints of religion? Many prominent nonbelievers, like Stanley, responded by paying lip service in public to religion while also looking for secular ways to inculcate a sense of “duty.” During the awful trek through the Ituri jungle, he exhorted the

men by quoting one of his favorite couplets, from Tennyson's "Ode on the Death of the Duke of Wellington":

Not once or twice in our fair island-story,  
The path of duty was the way to glory.

Stanley's men didn't always appreciate his efforts—the Tennyson lines got very old for some of them—but his approach embodied a correct principle of self-control: Focus on lofty thoughts. The effects of this strategy were recently tested by a team of researchers headed

by Kentaro Fujita, of New York University, and his thesis adviser, Yaacov Trope. They used a series of methods to move people's mental processes to either high or low levels. High levels were defined by abstraction and long-term goals. Low levels were the opposite. For instance, people were asked to reflect either on why they did something or on how they did something. “Why” questions push the mind up to higher levels of thinking and a focus on the future. “How” questions bring the mind down to low



inherent relation to self-control. Yet self-control improved among people who were encouraged to think in high-level terms, and got worse among those who thought in low-level terms. Different measures were used in assorted experiments, but the results were consistent. After engaging in high-level thinking, people were more likely to pass up a quick reward for something better in the future. When asked to squeeze a handgrip, they could hold on longer. The results showed that a narrow,







This poor body of mine has suffered terribly . . . it has been degraded, pained, wearied & sickened, and has well nigh sunk under the task imposed on it; but this was but a small portion of myself. For my real self lay darkly encased, & was ever too haughty & soaring for such miserable environments as the body that encumbered it daily.

Was Stanley, in his moment of despair, succumbing to religion and imagining himself with a soul? Maybe. But given his lifelong struggles, given all his stratagems to conserve



# **8: DID A HIGHER POWER HELP ERIC CLAPTON AND MARY KARR STOP DRINKING?**

Holy Mother,  
hear my cry,  
I've cursed your  
name a thousand  
times.

I've felt the  
anger running  
through my soul;  
Holy Mother,  
can't keep  
control.



International  
spy. Drug mule.  
Assassin.

—*Mary Karr, in her  
memoir Lit*

During Eric Clapton's many suicidal moments, when wealth and fame and his music were no longer enough, he was sustained by one thought: If he killed himself, he would no longer be able to drink. Alcohol was his great enduring love, supplemented by serious affairs with cocaine,





career and wrecked his marriage, but he couldn't stop drinking even after being seriously hurt in a drunk-driving accident. The birth of his son inspired him to return to Hazelden, but toward the end of his rehab he still felt powerless to resist the bottle.

"Drinking was in my thoughts all the time," he writes in his autobiography, *Clapton*. "I was absolutely terrified, in complete despair." As he was panicking one night alone in his room at the clinic, he found himself













binge that ended with her car spinning out of control across a highway, Karr resolved to remain sober and dutifully followed the Alcoholics Anonymous advice to seek a higher power. She put a cushion on the floor and knelt for the first time in her life to say a prayer—or at least her version of a prayer. The best she could come up with was: *Higher power, where the fuck have you been?* She still didn't believe in any kind of deity, but she did decide to keep offering thanks every evening for remaining



I don't believe in God? It's like they've sat me in front of a mannequin and said, Fall in love with him. You can't will feeling." Religion was so irrational, and yet, when she found herself desperately craving a drink at a cocktail party for the New York literati at the Morgan Library, she retreated to the ladies' room, went into a stall, and irrationally sank to her knees to pray: *Please keep me away from a drink. I know I haven't been really asking, but I really need it. Please, please, please.* Just as with Clapton, it worked

for her: “The primal chattering in my skull has dissipated as if some wizard conjured it away.”

That wizardry can be especially hard to understand for agnostics, a group that includes us. (We’re both lapsed Christians who don’t spend much time on our knees praying to any higher power, either at home or in church.) But after looking at the data, we have no trouble believing there’s some kind of power working at 12-step meetings and religious services. Although many



millions of people like Eric Clapton and Mary Karr without doing something right. Does a belief in a higher power really give you more control over yourself? Or is something else going on—something that even nonbelievers could believe in?

## The Mystery of AA

With the exception of organized religion, Alcoholics Anonymous probably represents the largest program ever conducted to improve self-control. It attracts more









attend infrequently, but the critics wonder about cause and effect. Does frequent attendance make people more likely to abstain, or does abstinence make people more likely to keep attending? Perhaps the ones who fall off the wagon are too ashamed to keep showing up. Or perhaps they simply started off with less motivation and more psychological problems.

Despite these uncertainties, researchers have found some evidence that AA works. When two things go together and researchers want to know

which one causes the other, they sometimes try to track them over time and see which comes first—assuming that causation moves forward across time, so the cause precedes the effect. After tracking more than two thousand men with drinking problems for two years, a team led by John McKellar of Stanford University concluded that attendance at AA meetings led to fewer future problems with drinking (and not the reverse—they found no evidence that the presence or absence of drinking problems affected









depends on monitoring, and AA offers help there, too. Members get chips for remaining sober for certain numbers of consecutive days, and when they get up to speak, they often start by saying how many days they have been sober. Members also choose a sponsor, with whom they are supposed to remain in regular, even daily, contact—and that, too, is a powerful boost for monitoring.

There are also a couple of other explanations for the correlation between attending AA meetings and drinking less. The less-









that being drunk made me a member of some strange, mysterious club.”

That’s the negative side of peer pressure. The positive side comes from craving acceptance and support from people with different desires, like the members of the AA groups who helped Clapton and Karr stay sober. The people at those meetings may ultimately matter far more than the twelve steps or the belief in a higher power. They may even *be* the higher power.

# **Heaven (like Hell) Is Other People**

One of the newest and most ambitious alcoholism studies involves a group of men in the Baltimore area who were in therapy for alcohol abuse. Many had been ordered by a court to choose between receiving professional treatment or going to prison, so they were hardly the ideal population of people trying to quit. They may have only been going through the motions as an alternative to prison. The researchers, led by Carlo DiClemente of the University of Maryland,



social support for their efforts to avoid drinking. The ones who were better at getting support from other people ended up abstaining more frequently and doing less overall drinking.

Social support is a peculiar force and can operate in two different ways. Plenty of research suggests that being alone in the world is stressful. Loners and lonely people tend to have more of just about every kind of mental and physical illness than people who live in rich social networks. Some of







attempts to remain sober, but at first she was put off by the motley crowd and the earnest stories.

She kept her distance until, after one particularly bad binge, she followed the AA advice and chose one member of the group, a fellow academic in Boston, as her sponsor—her personal counselor. She had no patience for the sponsor's talk about a higher power, but the daily conversations still made a difference: “With her ministrations, I do not—for two months—drink: a white-knuckled, tooth-

grinding effort that impresses no one outside the church basement I go to a few nights per week.” When the two women met for coffee to celebrate the two months of sobriety, Karr complained about the losers and loons in their AA group and their “spiritual crap.” Then, as Karr recalls, her sponsor suggested another way to think of a higher power, and of the group in the church basement:

“Here, she says, are a bunch of people. They outnumber you, outearn you, outweigh you. They

are, ergo—in some simplistic calculation—a power greater than you. They certainly know more about staying sober than you. . . . If you have a problem, bring it to the group."

Part of the group's power comes from the passive act of sitting there and listening. To novices, AA meetings can seem pointless because most of the speakers just take turns telling their own stories instead of responding to one another and offering advice. But the act of telling a story forces you to









to compare themselves with their peers.

Smoking cigarettes has long been regarded as a personal physical compulsion due to overwhelming impulses in the smoker's brain and body. Hence there was considerable surprise in 2008 when the *New England Journal of Medicine* published a study showing that quitting smoking seems to spread through social networks. The researchers, Nicholas Christakis and James Fowler, found that kicking the habit seemed to be





social support for quitting. Studies of obesity have detected similar patterns of social influence, as we'll discuss later.

## **Sacred Self-control**

If you're in a religious congregation and ask God for longer life, you are likely to get it. It doesn't even seem to matter which god you ask. Any sort of religious activity increases your longevity, according to the psychologist Michael McCullough (who isn't religiously devout himself). He looked at more than



doubt liked to think that God was directly answering their prayers. But divine intervention was not the kind of hypothesis that appealed to social scientists, if only because it was so tough to test in the lab. They have found more earthly causes.

Religious people are less likely than others to develop unhealthy habits, like getting drunk, engaging in risky sex, taking illicit drugs, and smoking cigarettes. They're more likely to wear seat belts, visit a dentist, and take vitamins. They have













Some religions, like Islam, require prayers at fixed times every day. Many religions prescribe periods of fasting, like the day of Yom Kippur, the month of Ramadan, and the forty days of Lent. Religions mandate specific patterns of eating, like kosher food or vegetarianism. Some services and meditations require the believer to adopt and hold specific poses (like kneeling, or sitting cross-legged in the lotus position) so long that they become uncomfortable and require

discipline to maintain them.

Religion also improves the monitoring of behavior, another of the central steps to self-control. Religious people tend to feel that someone important is watching them. That monitor might be God, a supernatural being who pays attention to what you do and think, often even knowing your innermost thoughts and reasons, and can't be easily fooled if you do something apparently good for the wrong reason. In a notable study by Mark Baldwin and his colleagues,





noticed with disapproval. Religions also encourage monitoring through rituals, such as the Catholic sacrament of confession and the Jewish holiday of Yom Kippur, that require people to reflect on their moral failures and other shortcomings.

Of course, it takes some discipline to even start practicing a religion, because you have to attend services, memorize prayers, and follow rules. One reason for the higher levels of self-control found among religious people is that the congregations are











and one kind of rules with another: organic instead of kosher, sustainability instead of salvation.

Nor is it just a coincidence that people who have set aside the Bible end up buying so many books with new sets of rules for living. They replace the Ten Commandments with the 12 Steps or the Eightfold Path or the 7 Habits. Even if they don't believe in the God of Moses, they like the idea of codes on sacred tablets. These sorts of rules and dogmas may leave you cold—and make you

nervous—but don't dismiss them all as useless superstition. There's another way to regard these rules, and it comes with enough statistical charts, mathematical game theory, and economic jargon to please the most secular scientists.

## Bright Lines

When Eric Clapton relapsed on that summer evening, when he drove by the pub and couldn't resist stopping in for a drink, he was undone by what's called





less important than this one little building. And thus, verily, our pilgrim's progress endeth with him passed out on the pub's floor.

That's the result of hyperbolic discounting: We can ignore temptations when they're not immediately available, but once they're right in front of us we lose perspective and forget our distant goals. George Ainslie, a renowned psychiatrist and behavioral economist with the Department of Veterans Affairs, worked out the mathematics of this











temptation. Suspecting that his dream of a long sober walk to the Celestial City might be doomed, Eric the Pilgrim starts bargaining with himself: *If I'm going to get drunk anyway tomorrow evening, what difference does it make if I stop for a drink now? Carpe diem! Bottoms up!* For him to resist a drink tonight, he needs to be confident that he won't yield to temptation tomorrow.

He needs the help of “bright lines,” a term that Ainslie borrows from lawyers. These are clear,











# **9: RAISING STRONG CHILDREN: SELF-ESTEEM VERSUS SELF-CONTROL**

You're a superstar no matter who you are or where you come from—and you were born that way!

*—Lady Gaga*

Brats are not  
born. They're  
made.

—*Deborah Carroll, a.k.a.  
Nanny Deb*

Thanks to the wonders of reality TV, middle-class parents across the United States have experienced a privilege once limited to the wealthy: outsourcing their jobs to a British nanny. Their stories vary, as you would expect from unhappy families, but the basic narrative arc is the same for each episode of

this genre, whether it's *Nanny 911* or *Supernanny*. It begins in a home with children running wild—crying, screaming, spitting, pulling hair, flinging sippy cups, scrawling crayon graffiti on sheets, smashing toys, punching parents, strangling siblings. They're literally climbing the walls of a ranch house in suburban St. Louis at the start of a classic *Nanny 911* episode titled "The Little House of Horrors." Then, and none too soon, a British nanny arrives at the home dressed in full Victorian regalia—black





attempt to use psychology for the public good, and it did indeed seem promising at first. Baumeister spent much of his early career on the self-esteem bandwagon. He was impressed by research showing that students with high self-esteem had high grades, while students with low-self esteem tended to struggle in school. Other studies revealed that unwed mothers, drug addicts, and criminals had low self-esteem. The correlations weren't large, but they were statistically significant, and the results



All this enthusiasm led to a new approach to child rearing imparted by psychologists, teachers, journalists, and artists like Whitney Houston. She summed up this philosophy in her 1980s hit song “The Greatest Love of All,” which was revealed to be none other than . . . oneself. The key to success was self-esteem. For children to succeed, she explained, they simply need to be shown “all the beauty they possess inside.”

It was a novel but irresistible idea to the

millions who began trying to improve children's academic skills by encouraging them to think, *I'm really good at things.* At home, parents practiced dispensing extra praise. Coaches made sure everyone got a trophy, not just the winners. The Girl Scouts adopted a program called "uniquely ME!" In school, children made collages of their favorite traits and discussed what they liked best about one another.

"Mutual admiration society" used to be a disparaging phrase, but today's young adults





society have roots in the low self-esteem of many of the people who make up society.”

He also noted, in a later passage that wasn’t nearly as newsworthy, that it was “disappointing” to see the lack of really solid scientific evidence “to date.” But better results were expected once more work was done, and there was plenty of money available for self-esteem research. The studies continued, and eventually another institution commissioned another report. This time it was not a political unit, like

the state of California, but a scientific body, the Association for Psychological Science. The conclusions did not inspire any performances from Whitney Houston or Lady Gaga.

## **From Self-esteem to Narcissism**

The psychologists on the review panel, which included Baumeister, sifted through thousands of studies looking for the ones that met high standards of research quality. The panel found several hundred, like

the one that tracked high school students for several years in order to understand the correlation between self-esteem and good grades. Yes, students with higher self-esteem did have higher grades. But which came first? Did students' self-esteem lead to good grades, or did good grades lead to self-esteem? It turned out that grades in tenth grade predicted self-esteem in twelfth grade, but self-esteem in tenth grade failed to predict grades in twelfth grade. Thus, it seemed, the grades

came first, and the self-esteem came afterward.

In another carefully controlled study, Donald Forsyth tried boosting the self-esteem of some of the students in his psychology class at Virginia Commonwealth University. He randomly assigned some students who got a C grade or worse on the midterm to receive a weekly message boosting their self-esteem, and some students with similar grades to get a neutral weekly message. The weekly pep talks presumably helped the

students feel better about themselves, but it didn't help their grades—quite to the contrary. When they took the final exam, not only did they do worse than the control group but their grades were even lower than what they'd gotten on the midterm. Their average score dropped from 59 to 39—from borderline passing down to hopeless.

Other evidence showed that, across the country, students' self-esteem went up while their performance declined. They just felt better about doing worse. In his own research,



about themselves. Children in particular tend to start off with very positive views of themselves. The consensus of the scientific literature happens to jibe with anecdotal evidence from the Baumeister household, where there have been conversations like this:

**Daughter** (4 years old): I know everything.

**Mother**: No, honey, you don't know everything.

**Daughter**: Yes, I do. I know everything.

**Mother**: You don't know the square root of thirty-six.

**Daughter** (without batting an eye): I'm keeping all the really big numbers a secret.

**Mother:** It's not a really big number. It's only six.

**Daughter:** I knew that.

And this was a child whose parents had *not* attempted to boost her self-esteem.

The review panel also concluded that high self-esteem generally does not make people more effective or easier to get along with. People with high self-esteem think they're more popular, charming, and socially skilled than other

people, but objective studies find no difference. Their self-esteem generally does not lead to better performance at school or at work, and it does not help prevent cigarette smoking, alcohol and drug use, or early sexual behavior. While there may be a correlation between low self-esteem and problems like drug addiction and teenage pregnancy, that doesn't mean that low self-esteem causes these problems. It works the other way: Being a sixteen-year-old pregnant heroin addict can make you feel







it's adulation they require). They expect to be treated as special beings and will turn nasty when criticized. They tend to make very good first impressions but don't wear well. When the psychologist Delroy Paulhus asked people in groups to rate one another, the narcissists seemed to be everyone's favorite person, but only during the first few meetings. After a few months, they usually slipped to the bottom of the rankings. God's gift to the world can be hard to live with.



clever study showing that words like “I” and “me” have become increasingly common in hit songs.

Whitney Houston’s “Greatest Love of All” has been taken to another level by musicians like Rivers Cuomo, the lead singer of Weezer, who wrote and performed a popular song in 2008 titled “The Greatest Man That Ever Lived.” It was autobiographical.

This broad rise in narcissism is the problem child of the self-esteem movement, and it is not likely to change anytime



# Exceptional Asians

There's one notable exception to the trend toward narcissism observed in psychological studies of young Americans. It doesn't appear among young Asian-Americans, probably because their parents have been influenced less by the self-esteem movement than by a cultural tradition of instilling discipline. Some Asian cultures put considerably more emphasis on promoting self-control, and from



override their natural impulses. In one test, for instance, the toddlers are shown a series of pictures and instructed to say “day” whenever they see the moon, and “night” whenever they see the sun. In other tests, the toddlers try to restrain themselves to a whisper when they’re excited, and play a version of Simon Says in which they’re supposed to obey one kind of command but ignore another kind. The Chinese four-year-olds generally perform better on these tests than Americans of the same age. The

Chinese toddlers' superior self-control might be due in part to genes: There's evidence that the genetic factors associated with ADHD (attention deficit hyperactivity disorder) are much rarer in Chinese children than in American children. But the cultural traditions in China and other Asian countries undoubtedly play an important role in instilling self-discipline, and those traditions in Asian-American homes have contributed to the children's low levels of narcissism as well as their



their achievements. After carefully reviewing IQ studies, Flynn concludes that the scores of Chinese-American and Japanese-American people are very similar to whites of European descent. If anything, the Asian-Americans' IQ is slightly lower, on average, although they do show up more at both the upper and lower extremes. The big difference is that they make better use of their intelligence. People working in what Flynn calls elite professions, like physicians, scientists, and



Japanese-Americans. By virtue of self-control—hard work, diligence, steadiness, reliability—the children of immigrants from East Asia can do as well as Americans with higher IQs.

Delayed gratification has been a familiar theme in the homes of immigrants like Jae and Dae Kim, who were born in South Korea and raised two daughters in North Carolina. The sisters, Soo and Jane, became a surgeon and a lawyer, respectively, as well as the coauthors of *Top of the Class*, a book about Asian parents' techniques

for fostering achievement. They tell how their parents started teaching them the alphabet before their second birthday, and how their mother was never one to reward a child whining for candy at the supermarket. When they reached the checkout counter, before the girls had a chance to beg, Mrs. Kim would preempt them by announcing that if they each read a book the following week, she would buy them a candy bar on the *next* shopping trip. Later, when Soo went off to college and asked her













Western counterparts: (1) higher dreams for their children, and (2) higher regard for their children in the sense of knowing how much they can take.” Chua’s basic strategies—set clear goals, enforce rules, punish failure, reward excellence—aren’t all that different from the ones being imparted to American homes on *Nanny 911* by Deborah Carroll, the member of the “team of world-class nannies” who gets assigned to the truly hard cases, like the Paul family portrayed in that “Little House of Horrors”





# Nanny Deb and the Triplets

When Carroll arrived at the Pauls' home near St. Louis, she wasn't particularly worried about the hellions she'd seen on video climbing the walls, spitting on the floor, and swinging from light fixtures. She knew that four-year-olds could be a handful, especially when there were three of them running wild. But she had had enough experience with other American houses of horrors to realize that there were bigger problems to deal with.



mother, married to a Briton, who would watch helplessly as her child went berserk. “The toddler would be literally spinning on the coffee table in a tantrum,” Carroll recalls, “and the mother would just say to her, ‘You’re in a really bad space, honey.’ There’s nothing wrong with a toddler having a tantrum. It’s natural. It’s our job to teach them other ways to deal with it.”

The Pauls weren’t as mellow as that mother, but they seemed just as helpless when it came to discipline. When the

father, Tim, came home from the office to find the living room covered in toys, he'd take a hockey stick and sweep them all into the closet. The mother, Cyndi, a former flight attendant accustomed to badly behaved adults, was overwhelmed by the triplets and had given up trying to get them to clean up their toys or get dressed. When Nanny Deb told them to put on their own socks—hardly an impossible feat for toddlers approaching kindergarten—one of them, Lauren, refused and ran





and spoiling the child was considered to be the essence of failed parenting. The Puritan Cotton Mather put it even more starkly: “Better whipt, than damned.” We’re not advocating a return to spanking, much less whipping, but we do think parents need to rediscover their roles as disciplinarians. That doesn’t mean being abusive or getting angry or imposing Draconian penalties. But it does mean taking the time to watch your child’s behavior and



the child that life is cruel and that aggression is appropriate. The speed of the punishment is much more important, as researchers have found in working with children as well as with animals. For lab rats to learn from their mistakes, the punishment generally has to occur almost immediately, preferably within a second of the misbehavior. Punishment doesn't have to be that quick with children, but the longer the delay, the more chance that they'll have forgotten the





delivered briefly, calmly, and consistently, according to Susan O'Leary, a psychologist who has spent long hours observing toddlers and parents.

When parents are inconsistent, when they let an infraction slide, they sometimes try to compensate with an extra-strict punishment for the next one. This requires less self-control on the parents' part: They can be nice when they feel like it, and then punish severely if they're feeling angry or the misbehavior is egregious. But imagine how this looks















answer, as ever, starts with setting goals and standards.

## **Rules for Babies and Vampires**

Long before children can read rules or do chores, they can start learning self-control. Ask any parent who has survived the ordeal of Ferberization, which is based on a technique found in a Victorian child-rearing manual. It requires the parents, against all instinct, to ignore their infants' cries when they're left alone at



















overjustification effect: Rewards turn play into work. More precisely, studies have shown that when people are paid to do things that they like to do, they start to regard the task as paid drudgery. By that logic, wouldn't paying for grades undermine children's intrinsic love of learning?

We're not convinced by that argument. In the first place, grades are already extrinsic rewards, so inserting money into the arrangement does not change any relevance of the overjustification effect to











her life, if they consummate their love. Thus they struggle:

**Edward:** Try to sleep, Bella.

**Bella:** No, I want you to kiss me again.

**Edward:** You're overestimating my self-control.

**Bella:** Which is tempting you more, my blood or my body?

**Edward:** It's a tie.

Their struggle is the same blockbuster ingredient that sold nineteenth-century romantic novels with titles like *Self-Control* and





teenagers can help draw up the rules, they begin to see these as personal commitments instead of parental whims. If they negotiate a curfew, they're more likely to respect it, or at least to accept the consequences for breaking it. And the more involved they get in setting goals, the more likely they are to proceed to the next step of self-control: monitoring themselves.

## Wandering Eyes

Before his famous marshmallow experiments

with children near Stanford University, Walter Mischel made another discovery about self-control while working in Trinidad. He went there with the intention of studying ethnic stereotypes. The two main ethnic groups in rural Trinidad were of different descent, one African, the other Indian, and they held negative but different stereotypes of each other. The Indians regarded the Africans as lacking in future orientation and inclined to indulge rather than save, whereas the Africans regarded the



who had a father in the home were far more willing than others to choose the delayed reward. Most of the racial and ethnic variation could be explained by this difference, because the Indian children generally lived with both parents, whereas a fair number of the African children lived with a single mother. The value of fatherhood was also evident when Mischel analyzed just the African homes: About half of the children living with fathers chose the delayed reward, but none of the children in

fatherless homes were willing to wait. Similarly, none of the Indian children living without a father were willing to wait.

These findings, which were published in 1958, didn't attract much attention at the time or in the ensuing decades, when it was dangerous to one's career to suggest that there might be drawbacks to single-parent homes. (Daniel Patrick Moynihan was excoriated for making that suggestion.) Starting in the 1960s, changes in federal policies, social norms, and divorce rates



with two parents. Even after researchers control for socioeconomic factors and other variables, it turns out that children from two-parent homes get better grades in school. They're healthier and better-adjusted emotionally. They have more satisfying social lives and engage in less antisocial behavior. They're more likely to attend an elite university and less likely to go to prison.

One possible explanation is that children in one-parent homes start off with a genetic disadvantage in



the results were in between. These children showed some deficits, but their problems were not as large as those of the children whose fathers had voluntarily left the home. The evidence suggested that, as usual, children are shaped by a mixture of genetics and the environment.

Whatever role is played by genes, there's an obvious environmental factor affecting children in single-parent homes: They're being watched by fewer eyes. Monitoring is a crucial aspect of self-



that started more than six decades ago.

In an attempt to prevent juvenile delinquency during the early 1940s, counselors visited more than 250 boys in their homes twice a month. They recorded observations about the family, the home, and the life of the boys. On average, the boys were about ten when the study began, and about sixteen when it ended. Decades later, when the boys had grown up and were in their forties and fifties, the notes were studied by a researcher named Joan





have found multiple benefits of parental supervision. Adolescents have higher self-control to the extent that their parents generally know where their offspring are after school and at night, what they do with their free time, who their friends are, and how they spend money. Although type I diabetes comes on early in life and may be mainly a result of genes, the adolescents with high trait self-control and high parental supervision have lower blood sugar levels (thus, less severe diabetic







with their shoelaces. That marshmallow experiment caused some researchers to conclude that controlling attention is what matters, not building willpower, but we disagree. Yes, controlling attention is important. But you need willpower to control attention.

## Playing to Win

For more than half a century, television has distracted children from other pursuits, and for more than half a century it's been blamed for just























# **10: THE PERFECT STORM OF DIETING**

It is a hard matter, my fellow citizens, to argue with the belly, since it has no ears.

*—Plutarch*

How did I let this happen again?

*—Oprah Winfrey*

There is nothing so universally desired in rich countries as flat abs. The more money we make, and the more of it we give to the diet industry, the more impossible that ideal seems. Losing weight is the most popular New Year's resolution year after year, diet after forsaken diet. In the long run, the vast majority of dieters fail. Therefore, we are not going to guarantee you an eternally svelte body. But we can tell you which techniques are more likely to help you lose weight,













her the relationship between weight and love.

The result was displayed on the cover of Winfrey's magazine in 2005: a radiant, sleek woman weighing 160 pounds. (Note, though, that this triumph still put her 20 pounds above what she weighed at the *start* of her first diet.) Winfrey's success story was an inspiration both to her fans and to an anthropologist at Emory University, George Armelagos. He used it to illustrate a historic shift that he dubbed the King Henry VIII and Oprah

Winfrey Effect. In Tudor England, it wasn't easy keeping anyone as fat as Henry VIII. His diet required resources and labor from hundreds of farmers, gardeners, fishermen, hunters, butchers, cooks, and other servants. But today even commoners can get as fat as King Henry VIII—in fact, poor people tend to be fatter than the ruling classes. Thinness has become a status symbol because it's so difficult for ordinary people to achieve unless they're genetically lucky. To remain thin, it





willpower, access to the world's finest professional advice, a cadre of dedicated monitors, plus the external pressure of having to appear every day in front of millions of people watching for any sign of weight gain. Yet despite all her strength and motivation and resources, she couldn't keep the pounds off.

That's what we call the Oprah Paradox: Even people with excellent self-control can have a hard time consistently controlling their weight. They can use their willpower to thrive in many

ways—at school and work, in personal relationships, in their inner emotional lives—but they’re not that much more successful than other people at staying slim. When Baumeister and his colleagues in the Netherlands analyzed dozens of studies of people with high self-control, they found that these self-disciplined people did slightly better than average at controlling their weight, but the difference wasn’t as marked as in other areas of their lives. This pattern showed up clearly among the overweight college







One reason is basic biology. When you use self-control to go through your in-box or write a report or go jogging, your body doesn't react viscerally. It's not physically threatened by your decision to pay bills instead of watch television. It doesn't care whether you're writing a report or surfing the Web. The body might send you pain signals when you exercise too strenuously, but it doesn't treat jogging as an existential threat. Dieting is different. As the young Oprah Winfrey discovered, the body will go

along with a diet once or twice—but then it starts fighting back. When fat lab rats are put on a controlled diet for the first time, they'll lose weight. But if they're then allowed to eat freely again, they'll gradually fatten up, and if they're put on another diet it will take them longer to lose the weight this time. Then, when they once again go off the diet, they'll regain the weight more quickly than the last time. By the third or fourth time they go through this boom-and-bust cycle, the dieting ceases to work; the extra









considering the unrealistic goals set by so many women. They look in the mirror and dream the impossible dream: a “curvaceously thin” body, as it’s known to researchers who puzzle over these aspirations. The supposed ideal of a 36-24-36 figure translates to someone with size 4 hips, a size 2 waist, and a size 10 bust—someone, that is, with ample breasts but little body fat, who must be either a genetic anomaly or the product of plastic surgery.



# The What-the-Hell Effect

The people arrived at the lab in what researchers call a “food-deprived state,” which is more commonly known as “hungry.” They hadn’t eaten for several hours. Some were given a small milkshake to take the edge off; others drank two giant milkshakes with enough calories to leave a normal person feeling stuffed. Then both groups, along with other subjects who hadn’t been given any kind of milkshake, were asked to serve as food tasters.





the crackers and quickly filled out their ratings. Those who had drunk the one modest milkshake ate more crackers. And those who were still hungry after not eating for hours went on to chomp through the better part of the cookies and crackers. All perfectly understandable.

But the dieters reacted in the opposite pattern. The ones who had downed the giant milkshakes actually ate *more* cookies and crackers than the ones who'd had nothing to eat for hours. The results stunned the researchers,

who were led by Peter Herman. Incredulous, they conducted further experiments, with similar results, until they finally began to see why self-control in eating can fail even among people who are carefully regulating themselves.

The researchers gave it a formal scientific term, *counterregulatory eating*, but in their lab and among colleagues it was known simply as the what-the-hell effect. Dieters have a fixed target in mind for their maximum daily calories, and when they exceed it for









## The Dieter's Catch-22

Humans are born with an innate gift for eating just the right amount. When an infant's body needs food, it sends a signal through hunger pangs. When the body has had enough food, the infant doesn't want to eat any more. Unfortunately, children start to lose this ability by the time they enter school, and it continues to decline later in life for some people—often the ones who need it the most. Why this occurs has been puzzling scientists for decades, starting with some research





initially hypothesized it was the cause of their problem: They became obese because they ignored their body's internal signals of being full.

It was a reasonable theory, but eventually researchers realized that they were confusing cause and effect. Yes, obese people ignored their inner cues, but that's not why they became obese. It worked the other way: Their obesity made them likely to go on diets, and their diets caused them to rely on external instead of internal cues. For what is a



typically lose touch with the stop-eating signal, too, particularly if the diet tells you exactly how much to eat. You eat by the rules, which works fine as long as you stick to them. But once you deviate from the rules, as just about everyone does, you have nothing left to guide you. That's why, even after downing a couple of big milkshakes, dieters and obese people not only continue but increase their eating. The milkshakes filled them up, but they still don't feel full. They have only the one bright line, and once they



binge as long as they had the willpower to observe the rules.

All of which makes a certain sense, but only until you actually begin testing those dieters' willpower with movies, ice cream, and M&M's, as Kathleen Vohs and Todd Heatherton did in a series of experiments. The psychologists recruited young women, all chronic dieters, and showed them a classic tearjerker, the scene in *Terms of Endearment* in which the young mother, who is dying of cancer, says good-bye to her two little

sons, her husband, and her mother. Half the dieters were instructed to try to suppress their emotional responses, both internally and externally. The other half were told to let their feelings and tears flow naturally. Afterward, all the dieters filled out questionnaires about their mood, and each was taken individually to a different room for what was ostensibly an unrelated task: rating various kinds of ice cream. The ice cream was presented to each dieter in several large and only partly full tubs, which

created the impression that the experimenters would not know how much was in there and how much each woman ate.

But, of course, the tubs had been carefully weighed beforehand, and they were weighed again afterward. The researchers found that there was no connection between the women's moods and their eating: The ones who were sadder after the movie didn't eat extra ice cream to drown their sorrows. What mattered was not their mood but rather their will. The dieters who had





temptation. For other women, the candy bowl was placed on the other side of the room and hence was easier to resist. Later, in a separate room with no food in sight, the women were given impossible puzzles to solve, that standard lab test of self-control. The dieters who had sat within arm's reach of the M&M's gave up sooner on the puzzles, demonstrating that their willpower had been depleted by the effort of resisting temptation. Clearly, if you're a dieter who doesn't want to lose

self-control, you shouldn't spend a lot of time sitting right next to a bowl of M&M's. Even if you resist those obvious temptations, you'll deplete your willpower and be prone to overeating other foods later.

But there's also another way to avoid this problem, as illustrated in a third experiment involving young women and food. This time Vohs and Heatherton tested nondieters in addition to dieters, and a clear distinction emerged. It turned out that the

nondieters could sit next to an array of snacks—Doritos, Skittles, M&M's, salted peanuts—without using up willpower. Some ate the snacks and some didn't, but either way, they weren't struggling to restrain themselves, so they remained relatively fresh for other tasks. The dieters, meanwhile, gradually depleted their willpower as they fought the urge to break their diet. They went through the same struggle that you see played out at social events when dieters are confronted with fattening





because, as we've already seen, self-control depletes the glucose in the bloodstream. If you've ever been on a diet and found yourself unable to shake those intrusive cravings for chocolate or ice cream, this is more than a matter of repressed desires coming back to haunt you. There is a sound physiological basis. The body "knows" that it has depleted the glucose in its bloodstream by exerting self-control, and it also seems to know that sweet-tasting foods are typically the fastest way to get an infusion of energy-rich



have a small sweet dessert later if you still want it. (We'll discuss this ploy later, too.) Meanwhile, eat something else. Remember, your body is craving energy because it has used up some of its supply with self-control. The body feels a desire for sweet foods, but that is only because that is a familiar and effective way to restore energy. Healthy foods will also provide the energy it needs. It's not what's on your mind, but it should do the trick.

Remember, too, that the depleted state makes you





conserve willpower, and use your self-control for more promising long-term strategies.

## **Planning for Battle**

When you're not starving, when you have glucose, you can prepare for the battle of the bulge with some of the classic self-control strategies, starting with precommitment. The ultimate surefire form of precommitment—the true equivalent of Odysseus tying himself to the mast—would be gastric bypass surgery, which would





You can consider more elaborate commitment devices, like placing a bet with a bookmaker, or by locking in a weight-loss agreement at Web sites like [fatbet.net](http://fatbet.net) or [stickK.com](http://stickK.com), which allow you to name your own goals along with penalties. A tough penalty, like committing yourself to donate hundreds or thousands of dollars to a cause you detest, can make a difference, but don't expect money to work miracles when you set an impossible goal. Losing 5 or 10 percent of your weight is a realistic goal,

but beyond that it becomes difficult to overcome the body's natural propensities. The typical bettor at the William Hill agency sets a goal of losing nearly three pounds per week for a total of almost eighty pounds—no wonder so many of them fail. The people putting up their money at [stickK.com](http://stickK.com) have a much better track record thanks to the Web site's policy of forbidding anyone from setting a goal of losing more than two pounds per week, or 18.5 percent of their body weight. It's possible to lose











effortless, you can pass up the chips and still have enough willpower to deal with the next temptation at the party.

For a more radical form of precommitment, you could skip the party altogether and seek out gatherings with lower-calorie offerings—and thinner people. We're not suggesting you dump your chubby friends, but there does seem to be a connection between what you weigh and whom you socialize with. Researchers who have analyzed social networks find that obese



least for a while) is that they're spending more time with other people who care about losing weight. It's the same phenomenon we noted earlier with smokers, who are more likely to quit if their friends and relatives also quit.

Peer pressure helps explain why people in Europe weigh less than Americans: They follow different social norms, like eating only at mealtimes instead of snacking throughout the day. When European social scientists come to the United States to study eating habits in

campus laboratories, they're surprised to discover that they can run experiments whenever they want to because American college students are happy to eat food any time of the morning or afternoon. In France or Italy, it can be hard to find a restaurant open except at mealtimes. Those social norms produce habits that conserve willpower through automatic mental processes. Instead of consciously trying to decide whether to snack, instead of struggling with temptation, Europeans rely

on the equivalent of an implementation plan: *If it's four P.M., then I won't eat anything.*

## **Let Me Count the Weighs (and the Calories)**

If you're trying to lose weight, how often should you weigh yourself? The standard advice used to be to not get on the scale every day, because your weight naturally fluctuates and you'll get discouraged on days it goes up for no apparent reason. If you want to keep up your

motivation, the weight-loss experts said, you should weigh yourself just once a week. That advice seemed odd to Baumeister and other self-control researchers, because their work on other problems consistently showed that frequent monitoring improved self-control. Eventually, a careful long-term study tracked people who'd lost weight and were trying not to regain it. Some of these people weighed themselves daily; others didn't. It turned out that the conventional wisdom was wrong.

The people who weighed themselves every day were much more successful at keeping their weight from creeping back up. They were less likely to go on eating binges, and they didn't show any signs of disillusion or other distress from their daily confrontation with the scale. For all the peculiar challenges to losing weight, one of the usual strategies is still effective: The more carefully and frequently you monitor yourself, the better you'll control yourself. If it seems like too much of a chore to write







with large portions. We've been further confused by the warnings of nutritionists and the tricks of food companies, who will use a label like "low-fat" or "organic" to create what researchers call a "health halo." Tierney investigated this phenomenon in the nutritionally correct neighborhood of Park Slope, Brooklyn, with an experiment designed by two researchers, Pierre Chandon and Alexander Chernev. Some of the Park Slopers were shown pictures of an Applebee's

meal consisting of chicken salad and a Pepsi; others were shown the identical meal plus some crackers prominently labeled “Trans Fat Free.” The people were so entranced by the crackers’ virtuous label that their estimate for the meal with crackers was *lower* than for the same meal without crackers. The label magically translated into “negative calories,” both in the informal experiment in Park Slope and in a formal peer-reviewed study published later by Chernev. Other studies have shown that both laypeople and



combined with eating are socializing and watching television—and both are associated with increased calorie consumption.

Researchers have repeatedly shown that eating in front of the television increases snacking, and that viewers will eat more when their attention is engaged—as in a well-executed comedy or horror film—than when they’re watching something boring. In one study, female dieters tripled the amount of food they ate when they were absorbed in a film.



to hidden tubes. The people just went on sipping from the bottomless bowl because they were so used to eating whatever was put in front of them. If you're guided by external cues instead of by your own appetite, you're vulnerable to gaining weight whenever you're served large portions, which can easily happen without your being aware of it. When food is served on large plates or when drinks are poured in wide glasses, you tend to underestimate how many extra calories are being added because you don't





The bones did the monitoring for them.

## Never Say Never

The results of dieting research tend to be depressing, but every now and then there's an exception, and we've saved our favorite cheery finding for last. It's from a dessert-cart experiment conducted by marketing researchers trying to figure out the central problem of self-control: Why is self-denial so difficult? As Mark Twain put it in *The Adventures of Tom Sawyer*: "To promise









short film while sitting next to a bowl of M&M's (a perpetual favorite in laboratories because they're so easy to work with—no muss, no fuss). Some people were told to imagine they had decided to eat as much as they wanted while watching the movie. Others were told to imagine they had decided not to eat any of the candy. A third group was told to imagine they had decided not to eat the M&M's now but would have them later on. In general, the instructions were effective: The ones told to assume





postpone pleasure had a golden opportunity to indulge themselves. You'd expect them to scarf the M&M's, while the people who'd sworn off the candy would either remain strong or perhaps just nibble. But exactly the opposite occurred. Those in the postponement condition actually ate significantly less than those in the self-denial condition. The findings would have been impressive if people had merely eaten equal amounts in the postponement condition and the refusal condition.



ones who'd postponed pleasure ate even less than the people who had earlier allowed themselves to eat the candy at will. Moreover, the suppression effect seemed to last outside the laboratory. The day after the experiment, all the people were sent an e-mail with a question: "How much do you desire M&M candies at this very moment, if someone offered them to you?" Those who had postponed gratification reported less desire to eat the candy than either the people who had refused the pleasure







# **CONCLUSION: THE FUTURE OF WILLPOWER—MORE GAIN, LESS STRAIN**

*(As Long as You Don't  
Procrastinate)*

Give me chastity  
and continence,  
but not yet.

*—Prayer of St. Augustine  
during his pre-saintly  
youth*

Like the young Augustine, everyone appreciates the benefits of self-control—someday. But when, if ever, is that day ever going to arrive for the nonsaints among us? If willpower is finite and temptations keep proliferating, how can there be a lasting revival of this virtue?

We don't minimize the obstacles, but we're still bullish on the future of self-control, at both the personal and the social level. Yes, temptations are getting more sophisticated, but so are the tools for resisting them. The



they monitored Germans throughout the day (in the beeper study we mentioned earlier), the researchers were surprised to find that people with strong self-control spent *less* time resisting desires than other people did.

At first Baumeister and his German collaborators were puzzled. Self-control is supposedly for resisting desires, so why are the people who have more self-control not using it more often? But then an explanation emerged: These people have less need to use willpower

because they're beset by fewer temptations and inner conflicts. They're better at arranging their lives so that they avoid problem situations. This explanation jibed with the conclusion of another study, by Dutch researchers working with Baumeister, showing that people with good self-control mainly use it not for rescue in emergencies but rather to develop effective habits and routines in school and at work. The results of these habits and routines were demonstrated in yet

another recent set of studies, in the United States, showing that people with high self-control consistently report less stress in their lives. They use their self-control not to get through crises but to avoid them. They give themselves enough time to finish a project; they take the car to the shop before it breaks down; they stay away from all-you-can-eat buffets. They play offense instead of defense.

In this closing chapter we'll review the strategy for going on offense, starting with one of the most





estimate that they waste a quarter of their hours on the job—two hours per workday. At the typical wage, that means that each employee is being paid about \$10,000 annually for time spent slacking off.

This vice has often been blamed, by psychologists as well as ditherers, on people's compulsion to do things perfectly.

Supposedly these perfectionists are flooded with worry and anxiety whenever they try to start a project because they see it's not living up to their ideals, so they get bogged down or

just stop working. This makes sense in theory, and doubtless it's true in some cases, but researchers have repeatedly failed to find a reliable link between procrastination and perfectionism. One reason psychologists were initially fooled into seeing a link might have been selection bias: A procrastinator with high standards would be likelier than a less ambitious ditherer to seek help for the problem, so perfectionists would show up more often in the offices of psychologists treating procrastinators. But there

are plenty of other people with high standards who don't procrastinate and do perfectly good work without pulling all-nighters.

The trait that does seem to matter is impulsiveness, which shows up over and over in studies of procrastinators. This connection helps explain recent evidence that procrastination is more of a problem for men than it is for women, and especially for young men: Men have more hard-to-control impulses. When procrastinators are feeling



mostly they're kidding themselves, as Baumeister and Dianne Tice discovered.

## The Deadline Test

The procrastination experiment took place in a wonderfully target-rich environment: a university campus. College students typically admit to spending a third of their waking hours procrastinating, and who knows how much more time is actually being wasted. Tice, who taught a course in health psychology at Case Western

University, identified the procrastinators in her class through a couple of means. First, at the start of the term, she had the students fill out a questionnaire about their work habits. Then she assigned a paper due on a Friday late in the term. Tice also announced that students who missed the deadline could turn in a paper in class on the following Tuesday, and that if they missed that second deadline, they could bring it to her office the following Friday—a full week past the original deadline. Later she







remembered that the students' assignment to keep health records had ended before the final week of the semester—just when the procrastinators were doing their last-minute papers. They might have been healthier when they were not working, but what happened to them at the end of the term, when the deadlines came due?

So the experiment was repeated another semester with another class, and this time the students continued to keep track of illnesses, symptoms, and physician visits right up

through final exams. Once again the procrastinators got lower grades and enjoyed better health early in the semester, when some of the early birds in the class were sniffling with colds as they worked on their papers. The procrastinators may have been out playing Frisbee, relaxing at parties, getting plenty of sleep. For a procrastinator whose deadlines are far off, life is pretty good. But eventually the bill comes due. At the end of the semester, the procrastinators suffered considerably more stress

than the others. Now they had to pull themselves together to do the overdue work, and they reported a sharp rise in symptoms and illnesses. In fact, the procrastinators were so much sicker than other students at the end of the semester that it more than canceled out their better health from the early weeks. Their all-nighters took a toll, and they had more health problems overall.

The worst procrastinators didn't even manage to meet the third and final deadline. They





“Hi, Dr. Tice,” she said, sounding nonchalant. “Can you remind me, what was this about a term paper for your class last semester?”

As you might have guessed, she didn’t get the paper done in time. There comes a point when no amount of willpower will save you. But most people, even chronic procrastinators, can avoid that fate by learning to play offense. So far in this book, we’ve discussed hundreds of self-control experiments and strategies. Now let’s review them and put them to use.

# **Willpower 101, First Lesson: Know Your Limits**

No matter what you want to achieve, playing offense begins by recognizing the two basic lessons from chapter 1: Your supply of willpower is limited, and you use the same resource for many different things. Each day may start off with your stock of willpower fresh and renewed, at least if you've had a good night's sleep and a healthy breakfast. But then all day things chip and nibble

away at it. The complexity of modern life makes it difficult to keep in mind that all these seemingly unrelated chores and demands draw on the same account inside of you.

Consider some of the things that happen in a typical day. You pull yourself out of bed even though your body wants more sleep. You put up with traffic frustrations. You hold your tongue when your boss or spouse angers you, or when a store clerk says “Just one second” and takes six minutes to get back to you. You try to

maintain an interested, alert expression on your face while a colleague drones on during a boring meeting. You postpone going to the bathroom. You make yourself take the first steps on a difficult project. You want to eat all the French fries on your lunch plate but you leave half of them there, or (after negotiating with yourself) almost half. You push yourself to go jogging, and while you jog you make yourself keep running until you finish your workout. The willpower you expended on each of these

unrelated events depletes how much you have left for the others.

This depletion isn't intuitively obvious, especially when it comes to appreciating the impact of making decisions. Virtually no one has a gut-level sense of just how tiring it is to decide. Choosing what to have for dinner, where to go on vacation, whom to hire, how much to spend—these all take willpower. Even hypothetical decisions deplete energy. After making some tough decisions, remember that

your self-control is going to be weakened.

Remember, too, that what matters is the exertion, not the outcome. If you struggle with temptation and then give in, you're still depleted because you struggled. Giving in does *not* replenish the willpower you have already expended. All it does is save you from expending any more. You may have spent the day succumbing to a series of temptations and impulses, but you could nonetheless have used up quite a bit of energy by resisting each



deplete you to pass up the impractical one with the spectacular view.

## **Watch for Symptoms**

There's no obvious "feeling" of depletion. Hence you need to watch yourself for subtle, easily misinterpreted signs. Do things seem to bother you more than they should? Has the volume somehow been turned up on your life so that things are felt more strongly than usual? Is it suddenly hard to make up your mind about even simple things? Are you





decision. To avoid succumbing to irrational biases and lazy shortcuts, articulate your reasons for your decision and consider whether they make sense.

Your capacity for fairness and balanced judgment will suffer. You'll be more inclined to stick with the status quo and less inclined to compromise, particularly if the trade-offs involve much mental work. Like the depleted parole judges we discussed in chapter 4, you'll be inclined to take the safer, easier option even when that option hurts someone else.



the boy's toys and put them into the two boxes he'd brought to the beach. It was a routine task, but with his glucose level so low, Turner was flummoxed by his options: which toy in which box? He desperately settled on the first rule that occurred to him—each toy had to go in *exactly the same box* that it had arrived in—and wasted time obsessively rearranging the toys as his blood sugar kept falling. Then, when they finally left and headed toward the beachside facilities—a snack bar and a public



you find yourself struggling with a routine decision. That's what a shortage of glucose can do to you. "It feels like a part of your brain has been taken from you," Turner says. "You can't concentrate. You sit there staring knowing that something needs to be happening, and you wonder why you can't do it." You can't do it until you make the same choice that finally saved Turner: Eat first. Lab researchers replenish this basic fuel by giving sugar-filled drinks because they work quickly, but it's better to use

protein. Get some healthy food into your body, wait half an hour, and then the decision won't seem so overwhelming.

## Pick Your Battles

You can't control or even predict the stresses that come into your life, but you can use the calm periods, or at least the peaceful moments, to plan an offense. Start an exercise program. Learn a new skill. Quit smoking, reduce drinking, make one or two lasting changes toward a healthy diet. These are all











willpower. How will you expend your willpower today, this evening, and the next month? If there are extra challenges ahead, like doing your taxes or traveling, figure out where you'll get the extra willpower, such as by cutting back on other demands.

When you're budgeting your time, don't give drudgery more than its necessary share. Remember Parkinson's Law: Work expands so as to fill the time available for its completion. Set a firm time limit for tedious tasks.

“Clean out basement” or “Reorganize closets” could take up the whole day—if you ever got around to it, which you won’t because you don’t want to lose a day of your life to something so mundane. But if you set a clear limit of one or two hours, you might get something done this Saturday (and then, if necessary, plan another short stint of work for another weekend). Even David Allen, the guru of productivity, makes allowances for Parkinson’s Law. When he travels for speeches on *Getting Things*

*Done*, he doesn't start packing until thirty-five minutes before departure. "I know I can pack in thirty-five minutes," he says, "but if I start any earlier, I could spend six hours on it. Giving myself a deadline forces me to make decisions that I don't want to make ahead of time—and I've accepted that about myself. I've got bigger battles to fight."

**Make a To-Do List—or at Least a To-Don't List**  
We devoted chapter 3 to the glorious history of the





# Beware the Planning Fallacy

Whenever you set a goal, beware of what psychologists call the planning fallacy. It affects everyone from young students to veteran executives. When was the last time you heard of a highway or building being completed six months early? Late and over budget is the norm.

The planning fallacy was quantified in an experiment involving college seniors working on honors theses. The psychologist Roger Buehler



wrong—but in fact it wasn’t. Not even half the students finished by their worst-case predicted date. The planning fallacy can affect just about everyone, but it takes a special toll on procrastinators who expect to get the job done in one concentrated burst of effort at the last minute. This strategy might work if they left themselves a big enough chunk of time right before the deadline, but they won’t do that. They’ll underestimate how long the work will take, and then they’ll discover that







only get goals one and two done, but not three, that's fine, but you can't go off working on other goals until you've done the top three. That's it—that's how we manage. It's simple, but it forces you to prioritize, and it's rigorous."

## **Don't Forget the Basics (like Changing Your Socks)**

As you start working toward your goal, your brain will automatically economize on willpower expenditures in other ways. Remember those college



leave you with less energy—and fewer healthy relationships.

Forget the image of starving artists who do great things by working around the clock in filthy garrets. Self-control will be most effective if you take good basic care of your body, starting with diet and sleep. You can indulge yourself in rich desserts, but be sure to get enough healthy food on a regular basis so that your mind has adequate energy. Sleep is probably even more important than food: The more that researchers

study sleep deprivation, the more nasty effects they keep discovering. A big mug of coffee in the morning is not an adequate substitute for sleeping until your body wakes up on its own because it has gotten enough rest. The old advice that things will seem better in the morning has nothing to do with daylight, and everything to do with depletion. A rested will is a stronger will.

Another simple old-fashioned way to boost your willpower is to expend a little of it on neatness. As we described in chapter 7,





show. Do your Web surfing on a different computer from the one where you work. To break a really entrenched bad habit like smoking, do it on vacation, when you're far away from the people and places and events you associate with cigarettes.

## **The Power of Positive Procrastination**

Procrastination is usually a vice, but occasionally—very occasionally—there is such a thing as positive procrastination. In the previous chapter we









# The Nothing Alternative (and Other Tricks of Offense)

Anthony Trollope's writing regimen is one path to self-discipline, as we mentioned in chapter 5. But what if, unlike Trollope with his watch at his side, you're incapable of producing 250 words every fifteen minutes? Fortunately, there's another strategy for ordinary mortals, courtesy of Raymond Chandler, who was bewildered by writers who could churn out prose every day.

Chandler had his own system for turning out *The*



This Nothing Alternative is a marvelously simple tool against procrastination for just about any kind of task. Although your work may not be as solitary and clearly defined as Chandler's, you can still benefit by setting aside time to do one and only one thing. You might, for instance, resolve to start your day with ninety minutes devoted to your most important goal, with no interruptions from e-mail or phone calls, no side excursions anywhere on the Web. Just follow Chandler's regimen:

“Write or nothing. It’s the same principle as keeping order in a school. If you make the pupils behave, they will learn something just to keep from being bored. I find it works. Two very simple rules, a. you don’t have to write. b. you can’t do anything else. The rest comes of itself.”

*The rest comes of itself.* That’s the seeming effortlessness that comes from playing offense. Chandler was incorporating several of the techniques we discussed earlier. The Nothing



*for with the cash in my wallet.* Every time you follow this kind of rule, it becomes more routine, until eventually it seems to happen automatically and you have a lasting technique for conserving willpower: a habit.

Of course, it's even easier to avoid running up debt at a clothing store if you go there without a credit card. Precommitment is the ultimate offensive weapon. Buy junk food in small packages or keep them out of the kitchen altogether. Plan meals by the week, rather than on the spur of





cigarette in their mouths while watching a movie without succumbing to the temptation to smoke. Plenty took the bet, and they lost. Better to precommit by leaving the cigarette somewhere else.

## Keep Track

Monitoring is crucial for any kind of plan you make—and it can even work if you don't make a plan at all. Weighing yourself every day or keeping a food diary can help you lose weight, just as tracking your purchases







break the rules, when you might be tempted to write yourself off as a hopeless cause, you can see otherwise by looking back at your progress. Gaining a couple of pounds this week isn't so discouraging if you've got a chart for the last six months showing a line sloping downward.

## Reward Often

When you set a goal, set a reward for reaching it—and then don't stiff yourself. If you just use willpower to deny yourself things, it becomes a grim, thankless













# The Future of Self-control

Until fairly recently, most people relied on a traditional method for maintaining self-control: They outsourced the job to God. Or at least to the fellow members of their religion. Divine precepts and social pressure from the rest of the congregation made religion the most powerful promoter of self-control for most of history. Today, even though the influence of religion is waning in some places, people are learning other ways to outsource self-







too late that we still don't have any time for it. Researchers term this the "Yes... Damn!" effect.

And we keep putting off present pleasures, like visiting the zoo or getting away for the weekend. There's so much of this procrastination that airlines and other marketers save billions of dollars annually from frequent flyer miles and gift certificates that go unredeemed. Like pathological tightwads who end up with saver's remorse, procrastinators of pleasure wind up regretting

the trips not taken and the fun forgone. Whether you're working or playing, you'll find more happiness and less stress by going on offense. Your ideal of paradise might be three weeks of doing nothing on a tropical island, but you can't get there without making plans in advance—and maybe, in the case of workaholics, establishing some bright-line rules against working in paradise.

Self-control is ultimately about much more than self-help. It's essential for savoring your time on





